UNIV. OF
TORONTO
LIBRARY

Digitized by the Internet Archive
in 2008 with funding from
Microsoft Corporation

http://www.archive.org/details/medicochirurgica31londuoft

P Med M

THE

MEDICO-CHIRURGICAL REVIEW,

(American Reprint)

AND

JOURNAL

OF

PRACTICAL MEDICINE.

(*NEW SERIES.*)

VOLUME THIRTY-ONE.

[1st of APRIL to 30th of SEPTEMBER.]

1839.

VOL. XI. of DECENNIAL SERIES.

EDITED

By JAMES JOHNSON, M.D.

PHYSICIAN EXTRAORDINARY TO THE LATE KING,

AND

HENRY JAMES JOHNSON, ESQ.

LECTURER ON ANATOMY AT THE SCHOOL OF ST. GEORGE'S HOSPITAL IN KINNERTON STREET.

412968
12. 6. 43

NEW YORK.

REPUBLISHED

BY RICHARD & GEORGE S. WOOD,

No. 261 Pearl-street.

P
Mea
M

4152616
13. C. 42

INDEX.

A.

Aberdeen Lunatic Asylum, report of 594
Abdomen, encysted dropsy of the - 541
Abdominal tumors, Dr. Bright on - 256
Abernethiana - - - - - 325
Abernethy's courtship - - 325
Abscess in the iliac region - - 239
Absence of the uterus - - 547
Abstracts of cases by Sir D. Dickson - - - - - - 607
Abuse of purgative medicines - 86
Abuses of medical charities - 357
Aconite, cases of poisoning by - 544
Actual cautery, utility of the - 276
Addison on cerebro-spinal affections - - - - - - 241
Administration of mercury - - 484
Advantages of a speculum-cushion 297
Ætiology of club-feet - - - - 200
Affections of the brain, bleeding in 81
Affections of the bones, venereal - 483
Ague, arsenic given for - - 390
Aitkins on the fucus esculentus as a rectum bougie - - - 48
Albuminous urine - - - 25
Alcock on surgical injuries - - 488
Alison on atmospheric contagion - 93
Alkalies for lithic acid gravel - 38
Allen on the classification of the insane - - - - - - 60
Allison's experiments on venous pulsation - - - - - 189
Alternating depositions of lithic acid and phosphatic calculi - 39
Alum, internally, in gonorrhœa - 216
Amaurosis, treatment of - - 219
Amenorrhœa, treatment of - - 222
America, progress of medicine in 584
Amputations - - - - 578
Analysis of bones affected with mollities ossium - - - 246
Anatomy, studentships in - - 284
Andral on the coagulation of the blood - - - - - - 231
Aneurysm of the pulmonary artery 149
Annual report of the Registrar-general - - - - - - 443
Antimonial medicines - - 92
Antiquity of vaccination - - 286
Anus, fissures of the - - - 529
Aphthous inflammation of conjunctiva - - - - - - 68
Application of cold in fevers - 394
Applications in ophthalmia - 273
Arm, case of paralysis of the - 220
Arnott on diseases of the eye - 280
Arrested developement, Cruveilhier on - - - - - - 201
Arsenic given for ague - - 390
Art of rising in physic - - 310
Arteries, Kirkbride on wounds of - 184
Arthritic iritis - - - - - 77
Ascites - - - - - - 541
Ashwell on incision of the uterus - 253
Atmospheric contagion, Alison on 93
Attention, Dr. Holland on - - 181
Auscultation of the heart, M. Beau on - - - - - - 535
Autoplasty after excision of cancerous tumors - - - 235

B.

Baldness, Dupuytren's Pommade for - - - - - - 240
Baltimore alms-house hospital rep. 273
Barataria - - - - - - 179
Barren Mammæ, case of prolific uterus with - - - - 150
Barron, Mr. and Mr. Pettigrew - 296
Bartlett on a chronic cerebral affection - - - - - - 566
Beau on auscultation of the heart - 535
Belladonna, utility of, in epilepsy - 513
Bermudas - - - - - 460
Bermudas, diseases of the lungs in 462
Bermudas, diseases of the stomach and bowels in - - - 462
Bimeconate of morphia - - 190
Biographical memoir of Dr. Heberden - - - - - - 122
Biographical memoir of Dr. Cheyne 129
Birmingham School of Med. report 608
Births, registration of - - 445
Bitters - - - - - - 418
Bladder, secale cornutum in paralysis of the - - - - 221
Blandin on traumatic paralysis - 220
Bleeding in affections of the brain 81
Blistering the eyelids, ophthalmia treated by - - - - - 562
Blood, changes in, in inflammation 229
Blood, coagulation of, in the vessels 231
Blood globule, description of the - 352
Blood, coagulation of the - - 374
Blood, condition of the, in the living vessels - - - 507
Blundell on midwifery - - 177

Blushing, Mr. Burgess on the mechanism of - - - - 173
Blushing, poetry of - - - 173
Bombay Med. Soc. transactions of 384
Bones, venereal affections of the 483
Botany, British, Dr. Macreight's 179
Botany for schools, by Lindley - 179
Bouillard's eloge on Broussais - 195
Bowels, obstruction of the - - 576
Brachial artery, bayonet wounds of 185
Brain, bleeding in affections of the 81
Branchial apertures in the decidua 520
Breeding leeches, mode of - 390
Bright on abdominal tumors - 256
British America, mortality of troops in - - - - 460
Brodie on vertebral diseases - 277
Brodie's treatment of gouty acidity 279
Broussais, eloge on - - - 195
Broussais, last illness of - - 197
Broussais, anecdote of - - 518
Broussaisism, decline of, in France 517
Bruit de soufflet, mechanism of the 575
Bubo - - - - - - 482
Burgess on the mechanism of blushing - - - - 173
Buxton, Sir C. Scudamore on the springs of - - - - 162
Buxton waters, analysis of the - 162
Buxton waters, effects of the - 163

C.

Cæsarian operation - - - 548
Cæsarian operation, successful case 549
Canada - - - - - - 467
Canada, condition of the hospitals in 468
Canada, diseases of - - - 469
Cancer - - - - - - 355
Cancer of the mamma, case of - 235
Cancer of the lower lip - - 236
Cancer of the tongue - - 267
Cancerous tumors, autoplasty after excision of - - - 235
Carbuncle, treatment of, with caustic alkali - - - - 149
Carcinoma of the hepatic ducts, Dr. Hake on - - - - 348
Carcinoma, varicose capillaries the cause of - - - - 351
Carpenter on physiology - - 165
Carpenter's inaugural dissertation 497
Case of the Rev. F. Jardine - 424
Cataract, Indian operation for - 388
Catarrhal ophthalmia - - 66
Catarrhal ophthalmia, treatment of 66
Catarrhus senilis - - - 402
Caustic alkali, treatment of carbuncle with - - - - 149
Caustis, treatment of nævi with - 227
Cerebral affections, general character of - - - - - 242
Cerebral affections connected with renal disease - - - - 242
Cerebro-spinal affections, Dr. Addison on - - - - 241
Cervix uteri, occlusion of the - 254
Chancres - - - - - 481
Chancres, Hunter's definition of - 481
Changes of the blood in inflammatory diseases - - - - 229
Changes which occur in old age - 400
Chemosis of corneal conjunctiva - 75
Cheyne, biographical memoir of - 129
Chilblains, useful application to - 227
Chronic bronchitis, copaiba balsam in - - - - - - 226
Chronic cerebral affection - - 566
Chylous urine - - - - 25
Circular to medical practitioners 448
Circular and flap amputations - 579
Civilization, influence on insanity 551
Classification of the insane - 60
Climate of Guiana - - - 52
Club-feet, ætiology of - - 200
Club-foot, case of - - - 524
Coagulation of blood in the vessels 231
Colchicum in gout - - - 87
Colchicum, external use of - 190
Colica pictonum, observations on 151
Colica pictonum, treatment of - 152
Colon, pathology of the - - 403
Condition of hospitals in Canada - 468
Conjunctiva, pustular inflammation of the - - - - 68
Conjunctiva, variolous inflammation of the - - - - 70
Consumption, deaths from - - 454
Cooper's treatment of varicocele - 247
Copaiba balsam in chronic bronchitis - - - - - 226
Corneal conjunctiva, chemosis of 75
Corpuscules, size of the - - 354
Corrigan on the mechanism of the bruit de soufflet - - - 575
Cowan on medical quackery - 511
Creosote, styptic action of - 225
Cruveilhier on arrested developement - - - - - 201

D.

Danger of resuscitating a jail bird 333
Danger of medical quackery, Dr. Cowan on - - - - 511
Davies' selections in pathology and surgery - - - - 377
Death of Talma - - - 233
Death of Shakspeare - - - 501
Death from hanging, signs of - 550

Deaths of doctors - - - 332
Deaths at particular ages - - 446
Deaths from small-pox - - 453
Deaths from mental emotions - 454
Deaths from consumption - - 454
Deaths from intemperance and starvation - - - - 455
Decandolle's vegetable organography - - - - - 179
Deccan, mode of breeding leeches in - - - - - - - 390
Decidua, branchial apertures in the 521
Decline of Broussaisism in France 517
Deficiency of food, Dr. Howard on the effects of - - - 509
Delirium tremens, treatment of - 572
Delirium tremens, Dr. Wolff on - 499
Description of the pus globule - 352
Description of the blood globule - 352
Detection of the salts of lead, Orfila on - - - - - - 208
Dezeimeris on re-vaccination - 193
Dezeimeris on ruptures of the heart 531
Diabetes mellitus - - - 34
Diabetes, relative quantity of ingesta and egesta in - - - 35
Diabetes, proximate cause of - 35
Diabetes, treatment of - - 36
Diabetic urine, existence of urea in - - - - - - - 36
Diagnosis of vertebrial disease - 277
Diagnostic marks of syphilitic iritis 76
Diary of the Rev. Mr. Ward - 501
Dick on porrigo - - - - - - 502
Diet - - - - - - - - - - 414
Digestion, disorders of - - - - 414
Digestive organs, diseases of the - 454
Digitalis, use of - - - - - - 90
Digitalis, improved tincture of - 183
Dilatation of the os uteri in lingering labour - - - - - - - 43
Diluents, use of - - - - - - 85
Disease, influence of weather on - 393
Diseased hepatic ducts, matter contained in - - - - - - - - 352
Diseases of the urinary organs - 25
Diseases of women, Jones on the 53
Diseases of the eye, Morgan on the 64
Diseases of the knee-joint, Mr. Merryon on - - - - - 299
Diseases of the digestive organs 454
Diseases of the urinary organs - 454
Diseases of the tegumentary system 454
Diseases of the town and country 455
Diseases of Canada - - - 469
Dislocation of the head of the humerus - - - - - 579
Dislocation of the upper end of the radius - - - - 580
Disorders of digestion - - 414
Diurnal variations of the pulse - 244
Division of the tibia - - - 249
Doctrine of arrested development 201
Donovan's improved tincture of digitalis - - - - - - 183
Dropsies, Dr. Osborn on - - 295
Dropsy and consumption curable 513
Dublin cow-pox institution, report of the - - - - - 188
Dublin University, new regulations 590
Dubois, malpaxis of - - - 518
Dundee Royal Asylum, report of the 591
Dupuytren's pommade for baldness 240
Duration of pregnancy - - 424
Dysentery, use of sugar of lead in 150
Dysentery, treatment of - - 274
Dyspepsia, are vegetables injurious in - - - - - - 416

E.

Eccentric medical men - - 320
Ectropeon - - - - 79
Effects of deficiency of food - 509
Elaterium for hypertrophy of the heart - - - - - - 277
Electricity as a medical agent - 396
Electro-puncture in paralysis - 220
Elliotson's principles of medicine 366
Eloge on Broussais - - - 195
Emetics, use of - - - 89
Eminent medical men - - 327
Encysted dropsy of the abdomen 541
Eneuresis - - - - - 560
Endocarditis, M. Legroux on - 209
Endocarditis in acute rheumatism 276
Enlargement of the kidney - 257
Entropeon - - - - 79
Epilepsy, utility of belladonna in 543
Ergot, Mr. Rose on the use of the 43
Ergot of rye in paralysis - - 222
Erysipelas - - - - 265
Erysipelas - - - - 380
Esquirol and Marc on insanity - 206
Evils of medical charities - 357
Examination of an inflamed eye 67
Expectation of life at various ages 445
Experiments on the poison of the rattle-snake - - - - 155
Experiments on Wourali poison 185
Experiments on venous pulsation 189
Experiments on living animals 505
Eye, Morgan on the diseases of the 64
Eye, treatment of diseases of the 65
Eye, Arnott on diseases of the - 280
Eyelids, application of the nitrate of silver to the - - - 75
External use of colchicum - 190

F.

Fatal rupture of the speen - 391

Femoral artery, puncture of the 184
Fenner on the advantages of a speculum cushion - - 297
Fever - - - - - 477
Fevers, liability of soldiers to - 17
Fevers, application of cold in - 394
Fevers in the Bermudas - - 462
Fevers in Upper Canada - 469
Fibrous structure, tendency of, to disease - - - - 483
Fissure of the rectum - - 265
Fissures of the anus, M. Jourbert on 529
Flourens on the structure of the mucous membrane - - 527
Food - - - - - 414
Food and sleep, relations of - 425
Foramen ovale, case of patency of the - - - - - 211
Forensic medicine - - - 424
Formation and growth of urinary calculi - - - - - 38
Fothergill, anecdotes of - - 330
Fowler's case of molluscum - 47
Fox on intus-susceptio - - 46
Fractures of the thigh - - 263
Fractures of extremities, treatment of, - - - - 589
France, decline of Broussaisism in 517
Friederich on the internal use of alum in gonorrhœa . - 216
Fucus esculentus, as a rectum bougie - 48
Furnivall on phthisis . . 289

G.

Gangrenous inflammation of the mouth 560
General and comparative physiology, Mr. Carpenter on . . 165
Gibraltar, medical statistics of . 11
Gibraltar, yellow fever in . . 12
Glanders in the human subject 233
Glans penis, bite of a spider on the 565
Gonorrhœa, M. Ricord on - - 215
Gonorrhœa, internal use of alum in 216
Gonorrhœa, use of parsley in - 221
Gonorrhœa, identity of, with syphilis 480
Gout, use of colchicum in - - 87
Gout, Harvey's treatment of the - 335
Gout - - - - - 382
Gouty acidity, treatment of - 279
Growth of urinary calculi - - 38
Guerin on lateral deviations of the spine - - - - - 523
Guiana, climate of - - - 52
Guy on the diurnal variations of the pulse - - - - 244
Guy's Hospital Reports - - 241

H.

Hæmaturia - - - - 28
Hæmaturia, causes of - - 29
Hæmaturia, treatment of - - 30
Hake on carcinoma of the hepatic ducts - - - - - 348
Halliday on the West Indies - 49
Hanging, signs of death from - 550
Harlan on colica pictonum - 151
Harlan's med. and phys. researches 149
Hare-lip - - - - - 265
Harvey's treatment of the gout - 335
Head of the humerus, dislocation of 579
Heart, Dezeimeris on ruptures of 531
Heart, Beau on the auscultation of 535
Heart, cause of the impulse of the 536
Heberden, Dr. biograph memoir of 122
Hepatic ducts, Hake on carcinoma of 348
Hereditary disease - - - 406
Hernia cerebri, Mr. Mallet on - 45
Hernial sac, inflammation of the 268
Hernia cerebri, treatment of - 46
Hints on intermittent neuralgia - 515
Hip, injuries and diseases of the 237
Hip-joint, scrofulous disease of the 279
History of British birds, Yarrell's 178
Holland's med. notes & reflections 81
Holland on attention - - - 181
Holland's med. notes & reflections 392
Hospitals in Canada - - - 468
How to get a practice - - 310
Howard on the effects of deficiency of food - - - - - 509
Human subject, glanders in the - 223
Hydriodate of potash in syphilis 539
Hydrocele, tincture of iodine for 191
Hydrocele - - - - 265
Hydrocele cured - - - 270
Hydrocele, injection for - - 277
Hypertrophy of the os uteri, Dr. Kennedy on - - - - 159
Hypertrophy of heart, elaterium for 276
Hypothesis of morbid growths - 355

I.

Identity of gonorrhœa with syphilis 480
Iliac region, case of abscess in the 239
Illustrations of medical quackery 317
Imperforate uterus, case of - 251
Impotence, a consequence of diabetes 35
Improved tincture of digitalis - 183
Inaugural dissertation, Carpenter's 497
Incision of the uterus, Ashwell on 253
Incontinence of urine, Lendrick on 567
Indian lithotomist - - - 387
Indian operation for cataract - 387
Indian physician, his studies - 389
Infants, purulent ophthalmia of . 73
Inflammation of the conjunctiva . 68
Inflammation of the hernial sac . 268
Inflammation of the joints . . 381
Inflammation of the mammæ . 382

Inflammation of the prostate, nitrate of silver for . . . 580
Inflammatory diseases, changes of the blood in 229
Influence of physical agents on life 385
Influence of the weather . . 393
Influence of civilization on insanity 551
Influenza, mortality from . . 452
Ingesta and egesta, relative quantities of, in diabetes . . 35
Injection for hydrocele . . 278
Injuries and diseases of the hip . 237
Insane, Allen on the classification of 60
Insanity, Esquirol and Marc on . 206
Insanity, influence of civilization on 550
Intemperance and starvation, deaths from 455
Intermittent neuralgia, hints on . 545
Internal piles, M. Joubert on . 529
Internal administration of iron . 226
Intus-susceptio, Mr. Fox on . 46
Intus-susception, remarkable case, 154
Iodic acid, decomposition of, by uric acid 574
Iodine and mercury, compound salts of, in syphilis . . . 216
Iodine, powers and applications of 377
Iodine, mode of exhibiting . . 379
Ionian Islands, medical statistics of 20
Iris, natural coloration of the . 75
Iritis, use of turpentine in . . 280
Iritis, syphilitic, diagnostic marks of 76
Iritis, Dr. M'Cabe on . . . 597

J.

Jail-bird, danger of resuscitating a 333
Jardine, the Rev. Fergus, case of 424
Joints, inflammation of the . 382
Jones on the diseases of women 53
Joubert on internal piles . . 529

K.

Kennedy on hypertrophy of the os uteri 159
Kennedy on occlusion of the vagina and uterus 571
Key's case of division of the tibia 249
Kidney, enlargement of the . 257
Kidney, suppuration of the . 262
Kiestein in the urine of pregnant women - - - - - 229
Kirkbride on wounds of arteries - 184
Kluge's treatment of syphilis - 286
Knee-joint, Merryon on diseases of 299

L.

Laceration of the perineum cured 605
Lacerations of the recto-vaginal septum - - - - - 529
Lacerations of the perineum, M. Roux on - - - - - 526
Last illness of Broussais - - 197
Lateral deviations of the spine - 523
Lateral curvature, operation for - 575
Leeches, mode of breeding them in the Deccan - - - 390
Legroux on endocarditis - - 209
Lendrick on incontinence of urine 567
Letter from Mr. Fiddes - - 305
Life of Dr. Willis - - - 347
Life, influence of physical agents on 385
Lindley's school botany - - 179
Lisfranc's treatment of amaurosis 219
Liston on poultices - - - 282
Literary and scientific medical men 343
Lithic acid gravel, mode of giving alkalies for - - - - - 38
Living animals, Turner's experiments on - - - - - 505
Living vessels, condition of the blood in the - - - - 507
Locke, anecdotes of - - - 345
Lombard on typhus fever - - 541
Longevity in different counties - 446
Louis as a practical man - - 542
Lues venerea - - - - 483

M.

M'Cabe on the treatment in iritis - 597
Macfarlane's, Dr., case - - 601
Macreight's manual of Brit. botany 179
Mad-doctors and mad-houses - 347
Malignant ulcers of the tongue - 383
Malignant ulcers of the tonsils - 383
Mallet on hernia cerebri - - 45
Malpraxis of M. Dubois - - 548
Malta, medical statistics of - 16
Mamma, inflammation of the - 382
Mammæ, case of cancer of the - 236
Manual for students, Meade's - 177
Marc on insanity - - - 206
Marjolin on scrofula and syphilis - 213
Marsh miasma and fever - - 477
Massachusetts hospital, report of the 263
Meade's manual for students - 177
Mean annual mortality - - 458
Mechanism of blushing - - 173
Mechanism of the bruit de soufflet 575
Medical notes and reflections, by Dr. Holland - - - - 81
Medical portrait gallery - - 122
Medical and physical researches, Harlan's - - - - 149
Medical valets - - - - 287
Medical Portrait Gallery - - 309
Medical Sketch-book - - - 309
Medical quackery, illustrations of 317
Medical men, literary and scientific 343
Medical charities, abuses & evils of 357
Medical notes and reflections, by Dr. Holland - - - - 392
Medical science near the Indus - 387

Medical treatment of old age - 400
Medical evidence - - - 409
Medical statistics - - - 443
Medical practitioners, circular to 448
Medical memoranda - - - 501
Medical quackery, Dr. Cowan on 511
Medicine, Elliotson's practice of 366
Medicine, progress of, in America 584
Medicines, observations on - 84
Mediterranean, sickness of troops in 11
Melituria - - - - - - 34
Membrana tympani, tumefaction of 281
Menorrhagic chlorosis - - 223
Mental attention, effects of, on the bodily organs - - - 181
Mental emotions, deaths from - 454
Mercurial medicines - - - 88
Mercurial rheumatism - - 483
Mercury in syphilis, Dr. Murphy on 479
Mercury, administration of - 484
Merryon on diseases of the knee-joint, - - - - - - 299
Microscope, novel application of the 203
Midwifery in private practice, Mr. Rose on - - - - - 42
Midwifery, Dr. Blundell on - 177
Military medical reports - - 1
Military medical statistics - - 443
Milky urine - - - - 26
Mode of giving alkalies for lithic acid gravel - - - - 38
Mode of administering iron - 225
Mode of exhibiting iodine - - 378
Mollities ossium, Dr. Rees on - 246
Molluscum, case of, by Mr. Fowler 47
Monsey, anecdotes of - - 320
Montrose Lunatic Asylum - 591
Morbid changes of typhus - - 117
Morbid growths, hypotheses of - 355
Morgan on the diseases of the eye 64
Morphia, Squire's bimeconate of 190
Mortality among officers - - 9
Mortality from influenza - - 452
Mortality of troops in Brit. America 460
Mortality in North America, - 475
Motor roots, sensibility of the - 577
Mouth, gangrenous inflammation of 560
Mucous membrane, M. Flourens on 522
Mucus of the urine - - - 31
Murphy on mercury in syphilis - 479
Murray, Sir J. his reclamation - 598
Murray's, Sir J. fluid magnesia - 598

N.

Nævi, treatment of, with caustic - 227
Nasmyth on the teeth - - 138
Nervous system, comparative anatomy of the - - . - 178
Neuralgia, intermittent, hints on 545
New mode of treating prolapsus uteri - - - - - - 285
Newfoundland, climate of - - 473
Nitrate of silver, application of, to the eyelids - - - - 75
Nitrate of silver for inflammation of the prostate - - - 580
Nodes - - - - - - 483
Nova Scotia, diseases of - - 462
Novel application of the microscope 203
Nux vomica, utility of, in paralysis 217

O.

Observations on various medicines 84
Observations on vaccination - 555
Obstetrical advice - - - 548
Obstructed nasal duct, treatment of 78
Obstruction of the bowels - - 576
Obstructions of the rectum - 233
Occlusion of the cervix uteri - 254
Occlusion of the vagina and uterus 571
Old age, medical treatment of - 400
Oleo-albuminous urine - - 25
Ophthalmia, catarrhal - - 66
Ophthalmia from extraneous bodies 66
Ophthalmia, variolous - - 71
Ophthalmia, pustular - - 72
Ophthalmia of purulent infants - 73
Ophthalmia, strumous - - 74
Ophthalmia, applications in - 273
Ophthalmia, scrofulous - - 274
Ophthalmia, scrofulous, treatment of 540
Ophthalmia treated by blistering the eyelids - - - - 562
Operation for lateral curvature - 575
Opiates, use of - - - - 89
Opium as a diaphoretic - - 85
Orchitis - - - - - 215
Orfila on the detection of the salts of lead - - - - - 208
Osborn on dropsies - - - 295
Os uteri, Dr. Kennedy on hypertrophy of the - - - - 159
Os uteri, dilatation of the, in lingering labour - - - 43
Ozœna, treatment of - - - 561

P.

Paralysis, bleeding in - - 82
Paralysis, utility of nux vomica in 217
Paralysis of the arm, case of - 220
Paralysis of the bladder, secale cornutum in - - - - 221
Paralysis, ergot of rye in - - 222
Paraplegia, secale cornutum in - 546
Parsley in gonorrhœa - - 221
Partial sweating, case of - - 566
Patency of the foramen ovale - 211
Pathology & surgery, selections in 377
Pennsylvania Hospital, report of the 268

Perineum, Roux on lacerations of 526
Pettigrew's Medic. Portrait Gallery 122
Pettigrew's Medic. Portrait Gallery 309
Philip on the vital function - 177
Phlegmon - - - - 380
Phthisis, Dr. Furnival on - - 289
Physic and physicians - - 309
Physic, art of rising in - - 310
Physiology, Mr. Carpenter on - 165
Physiology of blushing - - 173
Pins & needles, case of swallowing 205
Pitting in small-pox, prevention of 574
Platina wire for uniting wounds 579
Poetry of blushing - - - 173
Points where a patient may judge for himself - - - - 421
Poison of the rattlesnake, experiments on the - - - - 155
Poisoning by extract of aconite - 544
Pommade for baldness, Dupuytren's 240
Popliteal tendons, spasmodic contraction of the - - - 526
Porrigo, Dr. Dick on - - - 502
Porrigo lupinosa - - - 503
Porrigo, treatment of - - - 504
Poultices, Mr. Liston on - - 282
Powers and applications of iodine 377
Practice, how to get a - - 310
Practitioners at home and abroad 288
Pregnancy, duration of - - 424
Pregnant women, kiestein in the urine of - - - - 228
Prescribing, modes of - - 419
Prevalence of suicide among the military - - - - - 4
Prevention of pitting in small-pox 574
Principles and practice of medicine, Elliotson's . . . 366
Progress of surgical literature . 578
Prolapsus ani 267
Prolapsus uteri, treatment of . 285
Prolific uterus, with barren mammæ, case of 150
Prospects of vaccination . . 397
Provincial Medical and Surgical Association, transactions of the 40
Proximate cause of diabetes . 35
Psoas abscess, dependence of, on diseased bone . . . 278
Pterygium pinque . . . 75
Ptisane de Feltz . . . 603
Pulmonary artery, aneurism of the 149
Pulmonary affections . . . 476
Pulse, Guy on the diurnal variations of the 244
Purgative medicines, abuse of . 86
Purkinge's observations on the teeth, 141
Purpura hæmorrhagica . . 305
Purulent urine 32
Purulent ophthalmia of infants - 73
Pus globule, description of the - 352
Pustular inflammation of the conjunctiva - - - - - 68

Q.

Quackery, medical, illustrations of 317
Quackery, medical, Dr. Cowan on 511

R.

Radius, dislocation of the upper end of the - - - - - - 580
Rash of Typhus fever - - - 100
Rattlesnake, experiments on the poison of the - - - - 155
Rayer sur les maladie des reins - 25
Recto-vaginal septum, lacerations of 529
Rectum, obstructions of the - 233
Rectum, fissure of the - - 264
Rees on mollities ossium - - 246
Registrar general, annual report of 443
Registration, success of the new - 443
Registration of births - - - 445
Relations of food and sleep - - 415
Remarkable case of partial sweating 566
Report of the Dublin Cow-pox Institution - - - - - - 188
Report of the Massachusetts Hospital - - - - - - 263
Respiratory apparatus, M. Serres on 520
Retension of urine, use of strychnia in - - - - - - - 191
Retzius' observations on the teeth 143
Re-vaccination, Dezeimeris on - 193
Re-vaccination - - - - 398
Re-vaccination - - - - - 578
Rheumatism - - - - 477
Rheumatism of the uterus - - 563
Ricord on syphilitic condyloma - 215
Ricord on iodide of pottassium in syphilis - - - - - 539
Ringworm - - - - - 503
Roberton on vaccination - - 170
Rose on midwifery in private practice, - - - - - - 42
Roupell on typhus fever - - 96
Roux on lacerations of the perinæum 526
Rupture of the spleen, fatal - - 391
Ruptures of the heart, M. Dezeimeris on - - - - - 531
Ruptures of the heart, spontaneous 532

S.

Salts of lead, Orfila on the detection of - - - - - - - 208
Scrofula, M. Marjolin on - - 213
Scrofulous ophthalmia - - 274
Scrofulous disease of the hip-joint 279
Scrofulous ophthalmia, treatment of 540
Scudamore on the springs of Buxton 162

Secale cornutum in paralysis of the bladder - - - - - 221
Secale cornutum in paraplegia - 546
Section of the tendo-achillis - 201
Selections in Pathology and surgery 377
Sensibility of the motor roots - 577
Serres on the respiratory apparatus 520
Shakspeare, cause of his death - 501
Sheffield, state of society in - 357
Sickness of troops in Brit. America, 460
Signs of death from hanging - 550
Size of varicose capillaries - - 354
Sketches of medical quackery - 317
Sleep and food, relations of - 415
Small-pox, deaths from - - 453
Small-pox, prevention of pitting in 574
Society in Sheffield, state of - 357
Spasmodic contraction of the popliteal tendons - - - - 526
Speculum, Jones on the use of the 53
Spider, bite of a, on the glans penis 565
Spine, lateral deviations of the - 523
Spine, operation for lateral curvature of the - - - - 575
Spleen, turbercle of the - - 355
Spleen, fatal rupture of the - - 391
Spontaneous rupture of the heart 532
Springs of Buxton, Sir C. Scudamore on the 162
Squire's bimeconate of morphia . 190
Statistics, military medical . . 1
Stomach, capillaries of the . . 355
Stomatitis, treatment of . . 560
Structure of the teeth . . . 141
Strumous ophthalmia . . . 74
Strychnia in retention of urine . 191
Students, Meade's manual for . 177
Studentships in anatomy . . 284
Studies of an Indian physician . 389
Styptic action of creosote . . 225
Success of the new system of registration 443
Sudorific medicines . . . 85
Sugar of lead in dysentery . . 150
Suicide. Whitfield on the causes of 282
Suppuration of the kidney . . 262
Surgery and pathology, selections in 377
Surgical literature, progress of . 578
Surgical injuries, Mr. Alcock on . 488
Swallowing of pins and needles, cases of 205
Swallowing pins and needles . 288
Swan's plates 178
Syphilis, M. Marjolin on . . 213
Syphilis and gonorrhœa . . 214
Syphilis, compound salts of iodine and mercury in . . . 216
Syphilis, Kluge's treatment of . 286
Syphilis, iodide of potassium in . 539
Syphilis, Dr. Murphy on Mercury in 479
Syphilitic iritis, diagnostic marks of 76
Syphilitic condyloma, M. Ricord on 215

T.

Talma, death of 233
Tartar emetic, utility of, in large doses 211
Teeth, structure of the . . . 141
Teeth, Mr. Nasmyth on the . . 138
Teeth, Mr. Wardroper on the . 502
Tegumentary system, diseases of the 454
Tendo-achilis, section of the . 201
Tetanus 374
Theory of life - - - - 169
Therapeutical memoranda - - 221
Thigh, fractures of the - - 263
Thompson on a peculiar affection of the uvula - - - - 41
Throat, ulceration of the - - 482
Throat, veneral ulceration of the - 482
Tibia, division of the - - - 219
Tongue, cancer of the - - - 267
Tongue, malignant ulcers of the - 383
Tonsils, malignant ulcers of the - 383
Tophi - - - - - 483
Towns, diseases of - - - 455
Traité des maladies des reins. Par P. Rayer - - - - 25
Transactions of the Provincial Medical and Surgical Association 40
Transactions of the medical society of Bombay - - - - 384
Traumatic paralysis of the arm, Blandin on - - - - 220
Traumatic delirium, frequency of - 269
Treatment of diabetes - - - 36
Treatment of strumous ophthalmia 74
Treatment of scrofulous ophthalmia 540
Treatment of stomatitis - - 560
Treatment of delirium tremens - 572
Trousseau's treatment of menorrhagic chlorosis - - - - 223
Tubercle of the spleen - - 355
Tulloch's military medical reports 1
Tumefaction of the membrana tympani - - - - - 281
Turner's experiments - - - 505
Turpentine, internal administration of - - - - - - 226
Turpentine for iritis - - - 280
Tweedie on imperforate uterus - 251
Tympanitis - - - - 406
Typhus fever, Dr. Roupell on - 96
Typhus fever, definitions of - 99
Typhus, rash of - - - - 100
Typhus, contagious nature of - 104

Typhus, causes of - - - 106
Typhus, complications of - - 109
Typhus, morbid changes of - 117
Typhus fever, M. Lombard on - 541
U.
Ulceration of the throat - - 482
Ulcers - - - - - 383
United Kingdom, sickness of troops in - - - - - - - 1
University College hospital - - 276
Upper Canada, diseases of - - 468
Urea, existence of, in diabetic urine 34
Urethra, vascular tumour of the - 587
Uric acid, decomposition of iodic acid by - - - - - - 574
Urinary organs, diseases of the - 25
Urinary diseases, Dr. Willis on - 25
Urinary calculi, formation and growth of - - - - - 38
Urinary organs, disease of the - 454
Urine, mucus of the - - - 31
Urine having the elements of the blood mixed with it - - - 28
Urine purulent - - - - 32
Urine, strychnia for retension of - 191
Urine of pregnant women - - 229
Urine, Dr. Lendrick on incontinence of - - - - - - - 567
Use of diluents - - - - 85
Uterus, Ashwell on incision of the 253
Uterus, rheumatism of the - - 563
Uterus, Dr. Kennedy on occlusion of 571
Uterus, absence of the - - 546
Utility of tartar emetic in large doses 211
Utility of nux vomica in paralysis 217
Utility of belladonna in epilepsy - 543
Uvula, Mr. Thompson on a peculiar affection of the - - - 41
V.
Vaccination, prospects of - - 397
Vaccination, Mr. Roberton on - 170
Vaccination in Barataria - - 171
Vaccination, antiquity of - - 286
Vaccination, observations on - 555
Vagina, occlusion of the - - 570
Vagina, occlusion of the, means of preventing - - - - 571
Varicocele, Cooper's treatment of 247
Varicocele, successful treatment of 270
Varicose capillaries the cause of carcinoma - - - - 351
Varicose capillaries, size of the - 354
Varicose capillaries, rupture of - 355
Variolous inflammation of the conjunctiva - - - - - 70
Variolous ophthalmia - - - 71
Vegetable organography, by De Candolle - - - - 179
Venereal ulceration - - - 275
Venereal affections of the bones - 483
Venous pulsation, Allison's experiments on - - - - 189
Vertebral diseases, Sir B. C. Brodie on - - - - - - - 277
Vertigo - - - - - 82
Vital principle - - - - 167
Vital function, Dr. Philip on the - 177
W.
Warburg's fever drops - - 50
Ward, the Rev. Mr., his diary - 501
Wardroper on the teeth - - 502
Waterton on the wourali poison - 185
Weather, influence of the - - 393
West Indies, Sir A. Halliday on the 49
Western Lying-in Hospital, report of - - - - - - - 272
Whitfield on the causes of suicide 282
Whitlow - - - - - 383
Willis on urinary diseases - - 25
Willis, life of - - - - 347
Wolff on delirium tremens - - 492
Women, Jones on the diseases of - 53
Wourali poison, Waterton on the 185
Y.
Yarrell's history of British birds - 179
Yellow-fever in Gibraltar - 12

THE

Medico-Chirurgical Review,

No. LXI.

[NO. 21 OF A DECENNIAL SERIES.]

APRIL 1, TO JULY 1, 1839.

STATISTICAL REPORTS ON THE SICKNESS, MORTALITY, AND INVALIDING AMONG THE TROOPS IN THE UNITED KINGDOM, THE MEDITERRANEAN, AND BRITISH AMERICA; Prepared from the Records of the Army Medical Department and War Office Returns.

IN the last number but one of this Journal we noticed the Statistical Reports on the sickness and mortality of our Troops in the West Indies. We have now before us a similar series of facts and observations on the health of our brave soldiers in the United Kingdom, in the Mediterranean, and in British America.

We are informed by Captain Tulloch, by whom these reports are drawn up, that they are the offspring of the same course of investigation, which was adopted in the case of the British Force in the West Indies. The Reports are as follows:—

1. On the Sickness, Mortality, and Invaliding among Troops serving in the United Kingdom.
2. Ditto, ditto, among those serving in the Mediterranean Stations.
3. Ditto, ditto, among those serving in British America.

And Captain Tulloch adds:—

"It has been deemed expedient to combine these in the present volume, because, as they serve to illustrate the influence of climates of which the diseases are in many respects similar, the reference which may become necessary for the purpose of comparison will thereby be materially facilitated.

In the preparation of these documents, particularly the medical details, I have been indebted to the assistance of the same parties to whom my obligations were expressed for similar aid in the West India Report, and the materials have principally been derived from the same source, viz., the Returns and Reports transmitted to the Director-General of the Army Medical Department by the Medical Officers in charge of the different Corps and Military stations in each Command.

From these documents more ample details might have been given illustrative of the topography of the Mediterranean and American Colonies; but as information on that subject can be obtained from other sources already before the public, it has been deemed expedient to limit that portion of the Report to such points as are likely to have exerted a material influence on the health of the Troops.

Many interesting speculations in regard to the supposed causes of some diseases, and the contagious or non-contagious properties of others, might also

have been supplied from the same source, but these being inconsistent with a Report of this nature, have only been adverted to where sufficient numerical evidence could be obtained for estimating their accuracy. Limited as that portion of the investigation has necessarily been, however, it will at least serve to develope facts which may prove useful in directing the future inquiries of others on the same subject." 4.

Were any person, unacquainted with the peculiar features of the British service, to be told that Reports were drawn up, and laid before the Parliament and the Public, on the sickness and on the diseases of troops,—were he informed that there was a medical department in the army, with numerous surgeons, an efficient head, and an organised system of reporting—were he told that these Reports were avowedly drawn from medical documents and archives in the possession of that same medical department, he would conclude, of course, that some officer in that department superintended, or helped to superintend, the publication of its documents, and that a work essentially medical, was consigned to the care of a professor of medicine. What would be his astonishment at learning that this Reporter General was a mere soldier, conversant no doubt with bayonets, not unacquainted with figures, but possessed of no more medical knowledge than would go to the composition of a black draught!

His astonishment would cease when he learnt the whole truth,—when he was informed that the surgeons of the Queen's service were too often neglected, too commonly set aside, and looked on as necessary yet contemptible appurtenances, like the suttlers or the common women of the camp.

It may be said indeed, that Captain Tulloch has taken to himself the assistance of two medical officers. No doubt he has. He could not do without them. Even a Heaven-born Doctor is obliged to avail himself of the assistance derived from mundane physic. But the editor of these Reports, avowedly and necessarily founded upon medical documents, as necessarily and still avowedly assisted and supported by medical men, takes especial care to place the latter completely in the back-ground, and, instead of being associated with them as equals and co-editors, which would have been as decent as correct, he buries them in a foot-note in the smallest type, while his own name is blazoned in letters so big and in a place so conspicuous, that the very printer's devil must have blushed through all his blackness. Nay, Mr. Marshall and Mr. Balfour are not even complimented by the conventional title of gentlemen, but are styled "the parties," as if they had contracted to furnish Captain Tulloch with the paper or the ink.

I. THE UNITED KINGDOM.

This part of the Report comprises six sections. For obvious reasons, we shall not attempt to analyse each, but content ourselves with selecting such passages and portions as carry with them interest or instruction.

As the troops of the Line are continually passing to and from foreign service, it is necessary to exclude them as data for the mortality of troops at home. The Reporters consequently confine their observations principally to those regiments of cavalry which have not been serving abroad during the

period embraced in this Report, and the Household Troops whose service is for the most part confined to the duties of the metropolis.

It may be loosely said that the diet of each soldier consists of three-quarters of a pound of fresh beef or mutton, which is made into soup with vegetables for dinner, and a pound of bread with coffee for breakfast. Where the regulated stoppage admits of a larger supply, the commanding officer may direct it to be purchased for the soldier if he thinks necessary.

The extent of duty and nature of their employment of course vary according to the arm of the service to which the troops belong, and the circumstances which call for their exertions; but in general it may be remarked that in this country they are seldom employed on any duty not strictly military; fatigue and working parties, which are common in the Colonies, are rarely necessary, and, with the exception perhaps of occasional night duty, there appears nothing in the nature of their occupations likely to operate prejudicially to health. It may safely be affirmed that they are at least better lodged, better fed, and have less onerous duties to perform, than the great mass of the laboring population. It might therefore be supposed that the mortality of the soldier was below that of the civilian, *selected* as the former is, with all the attributes and characters of health.

From all these circumstances it might fairly be supposed that the mortality of these troops would be much lower than that of civilians. But it is not.

By the Regimental Returns of the ages of the Dragoon Guards and Dragoons, it appears that nearly one third were between 18 and 25, another third between 25 and 33, and the remaining third of various ages between 33 and 40, with the exception of a few boys under 18. It may therefore be safely assumed that the average age of this class of troops is from 29 to 30; now, by the Carlisle tables, which exhibit the mortality of this country in the most favorable light, the number annually deceasing out of a thousand persons of that age would be about 10.

By Mr. Finlaison's observation, deduced from the duration of life among the government annuitants, about 13.

If we take the mean between these, *viz.*, 11.5 per thousand, as our standard, it corresponds very nearly with the ratio deduced from the Population returns, and is sufficiently accurate for the object in view.

The ratio of mortality among the troops in question would amount, according to tables and calculations furnished by Lieutenant Tulloch, to about $13,\frac{3}{10}$ per thousand, or from 1830 to 1836, years when the cholera or influenza prevailed, $15\frac{3}{10}$

Comparing this, observes Lieut. Tullock, with the rate of mortality ascertained from the preceding table, we should arrive at the conclusion that the proportion of deaths is at least one third higher among these troops than among an equal number of civilians of the same age, though the former have been carefully selected for their robust frames and supposed vigor of constitution.

This would at first sight indicate that the military profession, even under the most favorable circumstances, operates prejudicially to the health and constitution of those employed in it; and we should have proceeded to investigate the causes to which that was attributable, were it not in some measure accounted for by the great difference between the mortality in populous towns where troops are generally quartered and what prevails throughout

the whole kingdom, or in the rural districts, on which the previous calculations as to the duration of civil life have principally been founded.

The great disproportion between the mortality of a town and country population has of late years been made the subject of Parliamentary investigation, and various returns illustrative thereof have been ordered from the principal towns in the kingdom, which unquestionably prove the ratio there to be nearly one-third higher at the prime of life than among the rural population.

Our author compares the mortality of the troops with that of the population of Chester, Leeds, Bolton, Bury, Preston, Wigan, Bradford, Stockport, Macclesfield, Glasgow, London, and a few more towns. Omitting the table which contains the data, we may add the Reporter's conclusion that:—while the mortality among the Dragoon Guards and Dragoons, supposing the medium age to be 30, has been $15\frac{3}{10}$ per thousand, that of the civil population in the same towns, even between the ages of 20 and 30, has been 16 per thousand—a sufficient evidence that the apparent high ratio among the troops, as compared with the general mass of the population, arises not so much from any deteriorating influence in their profession, as from the disadvantage of their being subject to the insalubrious atmosphere of densely populated districts.

Capt. Tulloch adds, that after making every allowance, and taking every circumstance into consideration, it is certainly remarkable that the mortality should be so high among a class of men selected with such care.

He has not deemed it necessary to enter into any investigation as to the relative mortality of the troops in England, Scotland and Ireland; but from a rough estimate it appears that the troops in Scotland have been rather more healthy than in England or Ireland.

The Reporter next enters on the consideration of the amount of sickness in the Dragoons. But so many liabilities to error beset us in investigating this particular question, that we do not consider it would be worth our while to enter on it. It appears that there is no class of diseases, save those of the lungs, from which the troops suffer in a greater degree than the most select of the population.

Prevalence of Suicide among the Military.—"The large proportion," says the Reporter, "of suicides among this class of the military is a subject which particularly claims attention. Out of a total of 686 deaths no less than 35, or upwards of 1 in 20 of the whole, have been from this cause alone, independent of many attempts which did not prove fatal: whereas among those insured in the Equitable the proportion of suicides was not one fifth part as great, being only 1 in 110 of the deaths. This extreme tendency to self-destruction in the army will best be estimated by a comparison with the proportion of suicides in civil life in different countries, as stated by a recent statistical author.

In France there is annually	1	suicide to	18,000	inhabitants.
Prussia "	1	"	14,404	"
Austria "	1	"	20,900	"
Russia "	1	"	49,182	"
State of New York	1	"	7,797	"
" Boston	1	"	12,500	"
" Baltimore	1	"	13,656	"
" Philadelphia	1	"	15,875	"
Dragoon Guards and Dragoons in the United Kingdom	1	"	1,247	

In cities, where a large proportion of the military are quartered, the ratio of suicides is greater than in the whole population of a country, but still much below that among our troops. In the Department of the Seine (Paris) for instance, between 1817 and 1825, the suicides averaged annually—

		1 in 2,400	inhabitants.
In Berlin,	from 1813 to 1822	1 „ 2,941	„
Geneva,	„ 1820 „ 1826	1 „ 3,900	„
London		1 „ 5,000	„

Even assuming, however, the very highest average in civil life in this country, it would appear that suicides are at least five times as numerous among this class of the military. It is necessary, however, to keep in view, that instances of self-destruction rarely occur among persons under the age of 18, and are by no means so frequent among females as males—circumstances which must materially influence any comparison between its prevalence among a population of all ages and sexes, and a select body of troops from 18 to 40 years of age.

The proportion of suicides is found to be higher among the Dragoon Guards and Dragoons than any other description of force, probably because these corps contain more of that class who have by dissipation or extravagance reduced themselves from a higher sphere in life to the necessity of enlisting, and on whose minds this change of condition may, in some instances, operate so powerfully as to lead to self-destruction."

Making every allowance claimed by the Reporter, the number of suicides among the Dragoons is still lamentably striking. Perhaps reflection on the *morale* of the army may tend to diminish our surprise. In this country, we fear that the virtue of the land is not to be found in the military ranks. *They* frequently enter the army, *who* have proved themselves unfit for the trusts of civil life. The roué, the prodigal, the vain, the reckless, and the idle too commonly hail the recruiting officer. The indolence of the soldier's life begets the listlessness of ennui, and the desperate relief of sensuality; and the fatigues of a lazy occupation are lightened by the recreation of seduction and debauchery. One of our greatest statesmen warned his son, Robert Cecil, against the profession of arms; for soldiers in peace, said he, are like chimneys in Summer.

The sickness, the mortality, and the suicide of the dragoon, may disabuse perhaps the mind of the impression made by a red coat and a glittering sabre. The gay outside conceals and fosters the seeds of moral and of physical disease! The happy soldier—

> Who lives on his pay,
> And spends half-a-crown out of sixpence a-day,

when subjected to the severe and exact scrutiny of statistics, is stripped of his tinsel, and becomes an object of serious consideration. The philanthropist naturally asks, whether this state of things must, of necessity, be—whether men selected in the prime of life, and in the vigour of health, well fed, well clothed, taxed with light labour, oppressed with no care, no thought for the morrow's bread—whether such, we say, should necessarily be as sickly, as short lived, as frequent suicides, as these Reports establish that they are. This question is one for those on whom the management of the army depends, to answer to their own and the nation's satisfaction. We believe that it is the *morale* of the soldier that requires amendment: and the first step has been taken in the reformation of that, by establishing book-

societies in the barrack. The school-master must penetrate there, before the *cat*, the drummer, and the "crowner's quest," will depart.

The Foot-Guards.—The average strength of these troops may be stated at 4,764. The mortality, the Reporter writes, has been on the average of the seven years, 1830 to 1836, 21 6-10 per thousand of the strength annually, being nearly one-half higher than in the Dragoon Guards and Dragoons. This is the more remarkable, as it has been been shown that the climate of London, though certainly much less favourable to health than that of the rural districts, is not more insalubrious than many of the other towns in which the troops are quartered throughout the kingdom; the average annual mortality of the civil population between the ages of 20 and 40 being under 15 per thousand, and that of the East India Company's labourers employed there as low as 12½ per thousand at the same period of life.

The Reporters add, that "notwithstanding all the disadvantages of frequent night duty to which the Metropolitan Police Force is exposed, the mortality out of an average strength of 3,400 constantly employed was but 30 per annum, being under 9 per thousand, in addition to which nearly the same proportion was invalided for bad health. As it is understood, however that many leave that service of their own accord if they find it proving injurious to their constitutions, we forbear drawing any positive conclusion from this source, except that it certainly tends to strengthen the opinion that the great mortality of the Foot Guards is attributable to other causes than the climate of the Metropolis, especially as we shall hereafter have occasion to show that the Household Cavalry do not suffer in a similar degree from its influence."

A Table proves that the great mortality of the Foot Guards arises entirely from diseases of the lungs.

"It would appear that this high ratio of mortality by diseases of the lungs among the Foot Guards is not a necessary consequence of residence in the Metropolis, but rather originates in some peculiarity in the moral or physical condition of that description of troops, from which the others are comparatively exempt; for by calculations deduced from the London Bills of Mortality, from 1830 to 1835, it has been ascertained that out of a thousand deaths among the civil population the number by diseases of the lungs were,—

Pleurisy	12
Influenza	1
Inflammation of Lungs . . .	96
Consumption	177
Asthma, &c.	42
Total	328

being scarcely one-third of the whole; whereas out of 745 deaths among the Foot Guards no less than 487, or upwards of two-thirds, were from these diseases.

But the most conclusive proof on this subject is, that no such peculiarity is manifested in the fatal diseases of another class of troops *also quartered in the Metropolis*,"—namely, the

Household Cavalry—The average mortality of this class of troops is 14.5 per thousand. Thus, though exposed to the climate of the Metropolis, the mortality is not so high by at least one-half as among the Foot Guards,

and is even lower, by a small fraction, than among the cavalry corps employed throughout the kingdom. The mortality by diseases of the lungs is but 8.1, while among the Foot Guards it has averaged 14.1 per thousand annually during the same period. That the exposure of the Foot Guards in a greater degree on night duty will scarcely account for this difference may readily be supposed from the fact that, even among the troops of the line serving at home, whose constitutions have in some instances been deteriorated by residence in tropical or unhealthy climates, and who have an equal share of night duty to perform, the mortality by diseases of the lungs is much lower.

The Reporter next passes to the consideration of the liability of the troops to the principal diseases which carry them off.

1. *Fevers.*—Taking the average of the Dragoon Guards and Dragoons, the Foot Guards, the Household Cavalry, and Civil Life, 1·6 per thousand may be computed to die annually from fever.

From an extensive series of observations, it has been ascertained that, among troops serving in this kigdom, fevers are more prevalent during the summer than the winter months, in the proportion of 5 to 4. Of 4499 attacks, of which the dates have been stated, 2531 took place between May and October, and only 1968 during the rest of the year. This is by no means uniformly the case, however, for in 1832 and 1834, the preponderance of ferbile cases was in those months which in other years were most exempt from them.

2. *Eruptive Fevers.*—This class of diseases is now of rare occurrence in our army. About 2 out of every ten thousand of the troops throughout the kingdom, die annually from this class of diseases.

The admissions amount to about 3 per thousand annually, and the proportion of deaths to admissions is 1 in 15. It may be necessary to state, that by the regulations for the management of Regimental Hospitals, the Surgeon is called upon to report half-yearly, that every man, woman, and child, belonging to the regiment, bears unequivocal marks of either small or cow-pox, and he is directed to keep a register of the names and appearances, on the days of examination, of all patients vaccinated. Nothing shows the advantage of this precaution better than the fact that, in the Dragoon Guards and Dragoons quartered throughout the kingdom, only one soldier has been attacked by small-pox in every two thousand annually.

3. *Diseases of the Lungs.*—The average mortality throughout our army from this cause may be stated at 8 per thousand annually. The rarity of recovery from consumption, says the Reporter, is strikingly exemplified in the fact that of 286 admissions, among the Dragoon Guards and Dragoons, 236 are ascertained to have proved fatal, and the remaining 50 are more likely to have consisted of re-admissions than recoveries.

Nearly four-fifths of the fatal cases of diseases of the lungs arise from consumption, being as many as from all other causes in the army at home. The highest estimates in civil life rate the mortality from this disease at a seventh part of the deaths of all ages: or if the observation is confined to

adults alone, it may possibly amount to a fourth part, being at the utmost only half as high as among the troops.

That soldiers should suffer so much from this disease is remarkable, as an active life, spent for the most part in the open air, has generally a very material tendency to counteract its influence. From some very extensive calculations by Mons. Lombard, on the influence of professions on consumption at Geneva, it has been found that persons whose occupations were of an active description, inducing muscular exercise, and carried on in the open air, were not half so liable to that disease as those whose occupations were sedentary or carried on in shops and manufactories.

If the aggregation of a number of men into one apartment, even though the space is not very confined, creates a tendency to this disease, then it clearly points out the propriety of affording the soldier as ample barrack accommodation as possible, not with a view to his comfort alone, for that is a matter of minor consideration, but in order to check the ravages of a disease which creates more mortality than all the others to which troops in this country are subject.

4. *Diseases of the Liver.*—Very rare. The ratio of admissions has been about 8 per thousand annually, and the proportion of deaths to admissions may be estimated at 1 in 18.

5. *Diseases of the Stomach and Bowels.*—Nor are these a source of great mortality. The average of the whole may be taken at about 5-10 per thousand or 5 in ten thousand annually; and it is especially worthy of remark that, though in many of our colonies we find the mortality among our troops by this class of diseases not only higher than in civil life, but n some cases even as high as by all the diseases in civil life together, so far from there being any corresponding feature among the troops in this country, it is even less than among the most select of the population.

6. *Epidemic Cholera.*—During the three years it prevailed, about 2·8 per thousand of the strength were cut off by it annually.

Nothing can be more remarkable than the undeviating regularity with which this disease seems to have exerted its fatal influence in all localities. Here we have instances of different bodies of troops quartered in various situations throughout the kingdom, and yet the proportion of deaths is to within a fraction the same among all.

This is, we should think, a sufficient commentary on the thousand and one successful plans of treatment. The hot water and the cold—the calomel and salts—the stimulants and sedatives—the contagionist and anti-contagionist seem all to have been pretty nigh on a par. The mortality, we should observe, increased progressively with the advance of age.

7. *Diseases of the Brain.*—"We shall assume 8-10 per thousand, or 8 in ten thousand, for our standard of the annual extent of mortality by this class of diseases among troops in the United Kingdom, being only half the proportion which occurs in civil life, as shown by the Tables of the Equitable Office, on page 8. But this class of diseases is generally supposed to prove a greater source of mortality among the higher ranks, of whom the persons insured in

that office are principally composed, than among the lower orders from whom our soldiers are recruited." 14

8. *Dropsies.*—About $\frac{4}{10}$ per thousand are taken as the average number of deaths from this source.

Mortality of Different Ages.—The mortality of the Dragoons increases progressively with the advance of age, but by no means in so rapid a ratio as in the West India stations. But with the *Foot Guards* there will be observed this remarkable difference, that the mortality falls in a much higher proportion on soldiers between 18 and 25, and 25 and 33, in the Foot Guards than in the Dragoon Guards and Dragoons, while between 33 and 40, the mortality in both these descriptions of force is very nearly alike. This may be held in some measure to arise from a larger proportion being annually discharged for disabilities in the Foot Guards than in the Cavalry, whereby the few who are left above 33 must be comparatively more select lives in the former than in the latter force, and consequently less liable to mortality.

But though this may account for the reduced ratio of mortality between 33 and 40, to what are we to attribute its excess between the ages of 18 and 33, at which period of life it is double that of the Dragoon Guards and Dragoons or even of the Household Cavalry quartered in the Metropolis, while the number discharged for disabilities under 14 years' service is also proportionably high? This question is not satisfactorily answered.

On the Mortality among Officers serving in the United Kingdom.—The data, on this head, are imperfect, many officers selling out when their health begins to be impaired. But, making allowance for this and for other disturbing circumstances, the Reporters have ascertained from the Army List that, from 1826 to 1836 inclusive, there died among the officers of the Household Troops, Dragoon Guards and Dragoons, serving in the United Kingdom 67

The average number of officers in these corps, exclusive of the staff after-mentioned, was about 700

Making the annual ratio of mortality during these eleven years $9\frac{1}{2}$ per thousand of the strength, or very nearly the same as among the most select class of individuals insured in the Equitable Office between the ages of 20 and 40.

During the same period there were on the average about 27 regiments of the line always on the tour of home service; of the officers of which corps there died 110

The average number of officers belonging to these corps, exclusive of the staff after-mentioned, was 900

Making the average ratio of mortality during these eleven years, 11 per thousand of the strength annually.

In this calculation they have excluded the Paymasters, Quarter-Masters, and the Medical Staff, as they are considerably above the average age.

On the Influence of the Seasons in producing Sickness and Mortality among the Troops in the United Kingdom.—From the absence of sufficiently minute returns of the Household Troops, the Dragoon Guards and Dragoons alone

offer data for determining this point. The Reporters present a table of the admissions for and deaths from acute diseases in every 1000 of these troops during each month of the year. This table shews that, notwithstanding the large proportion of diseases which are attributed to the changeable nature of this climate, the attacks of sickness are fewest among the troops during the fogs and gloom of November, and throughout the winter they are considerably under the average, even though, from their professional duties, soldiers are much exposed to its severity; while during the months of July, August and September, when there exists that mild and serene atmosphere which *a priori* might be supposed most conducive to health, the proportion of sickness generally attains its maximum. The same feature will hereafter be shown to exist to a still greater extent in America, and other regions of the northern temperate zone. April and May seem also to prove peculiarly fatal to chronic cases among the troops in this kingdom: but at least nine-tenths of these are from consumption, and the influence of spring in accelerating the course of that disease has often been the subject of remark.

On comparing these results with what have been observed in the French army, they are found to tally in a remarkable degree. On inspecting a similar table of the mortality in that army, it appears that, whatever may be the causes which give such an unhealthy character to the autumnal season, these operate no less powerfully in the French army than our own, only that they seem to be a month later of coming into operation, and continue for a month longer than in this country. This, however, may possibly arise from a difference of the periods embraced in the Returns; for instance, if they are made up at the commencement of this month, the deaths there stated will be those of the previous month, and if this distinction has not been attended to in the above calculation, the necessary correction would make the results as to the influence of the seasons correspond in both countries, *viz.*, July, August, and September would be the most sickly, and November nearly the least so.

Mons. Quetelet, a statistical author whose attention has been drawn to this peculiarity of the mortality among troops being so much higher during the autumnal months than at any other period, has recently been at great pains to ascertain whether the same law extends to persons in civil life at corresponding ages. On inspecting his table of the mortality in each month, among persons between 20 and 40 in Belgium, it appears that, at those periods of life corresponding to the average ages of our soldiers, the autumnal months instead of being, as in the army, the most fatal, are, in civil life, the reverse; when, therefore, we find the unhealthy character of that season established in a still more marked degree among troops in the colonies, we shall no longer be inclined to view it altogether as a peculiarity of climate, but as in some measure resulting from the operation of a general cause affecting the health of soldiers in all latitudes north of the line.

II. ON THE SICKNESS AND MORTALITY AMONG TROOPS SERVING IN THE MEDITERRANEAN.

The Mediterranean Stations form three distinct Military Commands—Gibraltar, Malta, and the Ionian Islands.

1. *Gibraltar.*

On the topography of this celebrated Rock we need not dwell. We may simply observe that the climate of Gibraltar, though dry and sultry in summer, and subject to fogs and mists throughout the year, may generally be characterised as healthy. The greatest height of the thermometer in the shade during a period of five years was 91°, and the minimum 50°. The temperature in summer is always from 3° to 4° lower during the night than during the day—often much more; and in the morning before the sun appears above the Rock, and also towards sunset, the air is pleasantly cool and refreshing, even in the hot season.

Though snow seldom or never falls, and ice is rarely formed, the cold is keenly felt during the winter months, especially by those who have been long resident on the Rock.

The prevailing winds are from the westward and eastward. It seldom blows from the north or south, and when from these quarters continues but for a short time. The westerly winds are clear, dry and refreshing; blowing directly on the town, they promote a free circulation of air, and are esteemed highly favorable to health. The easterly winds, or Levanters, as they are termed, have quite a contrary character; their baneful effects are said materially to aggravate wounds and acute diseases, and often to prove fatal to convalescents; being surcharged with moisture during their transit across the Mediterranean, they are always damp, raw and unpleasant, and when from the southward of east, are generally accompanied with thick fogs, which envelop the Rock, and are supposed to produce the same debilitating effects as the sirocco in the upper part of the Mediterranean.

Easterly winds are most prevalent from July to November; this is the unhealthy period of the year among troops in Gibraltar, but as the same is the case in other countries remote from the influence of these winds, the insalubrity of that season cannot be altogether attributable to their agency.

The rains generally commence in the end of September or beginning of October, and set in with such violence as frequently to overflow the water-courses and commit great havoc in the streets of the town. The succeeding rains which continue to fall at intervals till the end of May, are much lighter, and during the middle of summer there is seldom any, the sky is then without a cloud, vegetation becomes languid, and, unless irrigated by artificial means, generally perishes.

Except during the years 1817, 1818, and part of 1819, when the 4th West India Regiment (a black corps) was employed at this station, the garrison has generally consisted of the service companies of five regiments of the line, with five companies of Artillery and one of Sappers and Miners.

Owing to the great extent of the works, and the number of sentries required, the duties of this garrison are rather severe: the results in this Report, however, sufficiently establish that they are by no means so much so as to prove injurious to health.

The mean strength of the white troops from 1818 to 1836 has been 3,172. The average ratio of deaths amounts to 22 per thousand of the strength annually, being considerably above that of troops in Britain; but in this is included the mortality occasioned by two severe and fatal epidemics —one of yellow fever in 1828, and another of cholera in 1834, by which nearly as many deaths occnrred as during all the other 17 years at this

station. Exclusive of these, the mortality would not have been more than 13 per thousand annually.

Sufficient evidence of the general salubrity of Gibraltar is afforded by the low mortality among the civil inhabitants. Out of a population of from 16,000 to 17,000, the deaths recorded in 10 years, when no severe epidemic prevailed, did not average more than 350 annually, which is as low as in the United Kingdom, though the fluctuations constantly occurring in the number of the inhabitants prevent any calculation as to the exact ratio. The principal diseases would seem to be fevers—diseases of the lungs—diseases of the stomach and bowels—abscesses and ulcers—and diseases of the eyes.

Passing to particular diseases we naturally are arrested by the

Yellow Fever.—Disregarding the vexata quæstio of its importation or spontaneous origin, we perceive and quote the following facts on its several appearances and its mortality—facts alike interesting and alike important to all parties:—

"The first appearance of this epidemic, of which we possess any specific details, was in August 1804, but till the end of September it did not become so prevalent as to call for the notice of the public authorities. It then rapidly increased till the end of October, when it reached the maximum, after which it gradually diminished in frequency and severity, and ultimately disappeared in the end of December or beginning of January. In this instance, however, it seems rather to have died away from want of subjects than from any mitigation of the causes by which it was induced,—for, after the most diligent inquiry, only 28 adults could be discovered within the garrison who had escaped the malady, and it very rarely attacks the same person twice. A manuscript journal of the events of that period states that neither wind, rain, nor any change of weather, had the smallest effect in checking its ravages or diminishing its malignity; about one third of the troops who were attacked died, and of the civilians a still greater proportion. The total number of deaths during its continuance amounted to—

Officers	54
Soldiers	864
Soldiers' wives and children	164
Civilians	4864

We cannot state the precise number of each class so as to ascertain the ratio of mortality, but about a fourth part of the troops and more than a half of the civil inhabitants were cut off. To the precaution of encamping the former out of town, which was adopted on the 26th of September, is probably to be attributed their not having suffered to so great a degree as the civilians who remained constantly within the garrison.

In the end of October 1810 a similar disease appeared, but was confined to the soldiers of one regiment, of whom only six died, and it ceased on that corps being encamped on the Neutral Ground.

In 1813 this disease again made its appearance as early as the middle of July, but two months elapsed before it prevailed to such an extent as to form the subject of official Reports. In the month of October most of the troops were removed to encampments on the Neutral Ground, where they were in a great measure exempt, though it continued to rage in the town till the month of December. It then became extinct, after cutting off 461 of the troops and 883 of the inhabitants.

In the following year this epidemic again broke out in the month of August,

and, the same precaution of encamping the troops having been resorted to, it disappeared by the end of October, with the loss of 114 of the military and 132 of the inhabitants.

The garrison suffered from no similar visitation from this period till 1828, when that epidemic broke out which is referred to in the preceding tables.

The first cases occurred among the civil inhabitants in the southern district of the town about the end of August, and on the 5th of September its appearance among the Sappers and Miners and 12th Foot quartered in that neighborhood was officially reported: the men of the latter corps were immediately encamped on the Neutral Ground, from which period till the end of the month, when they were obliged to resume their duties in the town, no new cases occurred among them.

Notwithstanding this precaution, however, by the middle of September the disease had appeared throughout all the town, and though both on this and previous occasions its ravages were at first confined to the filthiest and most densely populated districts, yet ultimately all ranks suffered from it in nearly an equal degree."

"The proportion of deaths to the number treated was almost the same among the inhabitants as the troops, but the proportion attacked does not appear to have been so great. This exemption is, however, more apparent than real, as from the total population should be deducted 6,000, who, having had the disease formerly, may have been thereby exempt from it on this occasion,—with this correction, its relative prevalence among military and civilians was very nearly the same."

The Reporters observe that, in 1828 and also in 1813 the mortality attained its maximum on the 16th of October, and in 1804 about a week earlier. The same has been observed in other parts of Spain, and also at New York, when yellow fever prevailed.

There was one marked peculiarity about it to which they consider it necessary to advert. In Gibraltar the same individual has seldom been attacked twice, even though a long series of years may have elapsed since he first suffered from it; but in the West Indies, and on the West coast of Africa, a former attack of remittent fever secures no such immunity,—indeed it could be proved, by reference to the Returns from these stations, that, in many corps every soldier must have been treated, on the average, twice or thrice for remittent fever during the few years of his stay there.

There was nothing remarkable in the atmospherical phenomena, which preceded the last epidemic. The Reporters go into this part of the subject and prove, we think conclusively, that to no appreciable atmospheric agency could the epidemic be attributed. Though no marked diminution either in prevalence or severity could be distinctly traced to the occasional reductions of temperature which took place during the continuance of this disease, yet it may be proper to observe that these epidemics have never been known to make their appearance at this station during winter, and have always declined in severity as that season approached.

The Reporters conclude with some observations upon the cause of the epidemic. If they leave it in great uncertainty, they do more than might have been expected. More positive opinions would have been contradicted by the very facts they deal in.

"As a cause of this disease, much has been attributed to the want of due ventilation in Gibraltar during the hot season, owing to the town being so much screened by the rock in rear; but this cause ought obviously to operate equally

in all years under equal degrees of temperature, which it does not; and it is only necessary, as a complete refutation of this theory, to refer to the situation of Cadiz and many of the other towns along the coast of Spain, which, though open to every breeze, are more frequently subject to this disease, and that too in a more aggravated form, than Gibraltar.

In 1804 and 1813 the state of the drains, and the crowded and filthy condition of the town, were assigned as the primary causes of the epidemic; but in 1828 many improvements had been made in these respects, and though some complaints were urged against the drains, and one was undergoing repair during the summer, it does not appear that, at the time the disease broke out, they were in a worse condition than they had often been in previous years when the town enjoyed its usual salubrity.

A removal, even to a very small distance from the town, seems to have secured a complete immunity from the epidemic, for it is stated by the surgeon of the 12th Regiment that of 92 women and 190 children encamped on the Neutral Ground during the whole period it prevailed, not one was attacked, though in constant communication with the soldiers of the corps who went daily from that encampment to do duty in the town, and of whom many were attacked with the disease on their return. It is also remarked, that on the Neutral Ground, the epidemic never made its appearance to any extent, though from 6000 to 8000 of the inhabitants were encamped there, yet that spot is composed of materials which are supposed highly favorable to the formation of malaria.

By those who maintain the doctrine of contagion, the disease was supposed to have been imported from the Havana in a Swedish ship, which lost two of her men on the passage, but on investigation, it was not established that the disease of which they died was yellow fever; and whether the origin of the epidemic be attributable to contagion or not, there seems no good reason for assigning the introduction of it to that ship more than to many others, especially as, on the suspicion of having had yellow fever on board, it underwent six weeks' quarantine, and was twice fumigated before being allowed to hold any communication with the garrison; during all this period no deaths or sickness took place on board, and at least ten weeks elapsed between the death of the two sailors and the period when the epidemic became prevalent.

By those adverse to the doctrine of contagion it has been asserted, that persons in immediate attendance on the sick within the garrison did not suffer to a greater extent than others who were not so exposed, and that those employed on that duty beyond the walls were not at all affected by the epidemic. Having no return of the number thus employed, or of the casualties among them, under these circumstances, it is impossible to attest this assertion by the numerical evidence requisite to warrant its authenticity.

Such are the principal facts connected with the appearance and progress of this singular disease, of which the cause still seems involved in mystery. When the unhealthy character of the autumnal months throughout the whole globe has been distinctly traced in the course of these investigations, and the remarkable coincidence established that most of the epidemics of a fatal nature in the northern hemisphere have either made their appearance, or raged with the greatest severity about that season of the year, it may possibly lead to the discovery of some peculiarity in the constitution of the atmosphere at that period, which may tend to elucidate the subject."

Diseases of the Lungs.—The ratio of admissions, says the Reporters, for this class of diseases is to that of the United Kingdom as 141 to 148, the principal difference being, that catarrhal affections are less frequent in Gibraltar, while inflammation of the lungs is much more so; the cases of the latter are, however, of a milder character, as only 1 in 45 died of those admitted into the hospital at Gibraltar, while 1 in 8 died of those admitted

for the same cause among the Dragoon Guards and Dragoons in the United Kingdom. The total mortality by diseases of the lungs would appear to be less at this station than at home: but that, we apprehend, arises from many of the consumptive patients being invalided, who if they die on their passage, or after their arrival in Britain, are not included in the Returns of the station where these diseases originated. That this is sufficient to account for the difference may easily be supposed from the fact stated in the Medical Report of 1835, that during the thirteen years previous, the average number of deaths from consumption in Gibraltar was 12 3-10 annually, besides about five sent home labouring under the same disease, of whom few or none recovered.

Consumption is as prevalent and fatal among the civil as the military population.

The influenza, of 1833, made its appearance in this garrison about the middle of December. But only two died of it. By the 8th of January the admissions had materially decreased, and by the 14th had entirely ceased. During its continuance, as well as for some time before it broke out, there was a prevalence of dry winds from the N.E. and N.W., and the medium range of the thermometer during the day was from 60° to 62°, but the nights were very cold. The disease entirely disappeared on the setting-in of the first rains, accompanied by easterly winds.

Diseases of the Liver.—This class of diseases is by no means either prevalent or a source of great mortality in Gibraltar, indeed it is only in a very trifling degree more so than in the United Kingdom.

Diseases of the Stomach and Bowels.—Comparing the influence of these diseases among the troops at this station and in the United Kingdom, it would appear that they are twice as prevalent and about thrice as fatal. This attributed by the Reporters to the quantity of salt meat issued to the troops.

Epidemic Cholera.—Admitted, 459—Died, 131—Proportion of Deaths to Admissions, 1 in 3 1-2.

We shall content ourselves with mentioning one or two circumstances which bear upon the question of contagion.

During the Spring of 1834 this disease prevailed in several of the towns and villages in the vicinity of Gibraltar; but no case occurred in the garrison till the 23d of May, when a soldier of the 92d Regiment, quartered in the King's bastion barrack, was suddenly attacked with decided symptoms, from which, however, he ultimately recovered. Two of the civil inhabitants died from it on the 3d and 5th of June, several other cases occurred on the 14th, and by the 17th of that month its presence was so decidedly manifested, both among the troops and inhabitants, as to be made the subject of official reports. From that period the number of cases progressively increased till the middle of July, when they began to decline, and the disease became extinct in its epidemic form in the beginning of August, though bowel-complaints of a severe character prevailed among the troops for several weeks after.

The Regiment which suffered most was the 5th Foot, though quartered in

the south barracks occupying one of the healthiest situations on the rock, and, by one of those peculiarities which often characterises the progress of this singular disease, its ravages were principally confined to the immates of the two wings of the building, while those in the centre were comparatively free from it. It was also remarked that though the first case was in the 92nd Foot, quartered in the centre of the town, in immediate contact with the inhabitants, no other occurred in that regiment till the middle of July, when the disease was on the decline, and even then few were attacked compared with the rest of the garrison.

Although, among the civilians, the old, the infirm, and the dissipated suffered, or where said to suffer, most, this was not the case with the troops. No part of the territory was exempt, and change of site, or of air, was of no avail.

"The medical officers seem to have been almost unanimous in their opinion that the disease was not contagious. In the same ward with the cholera patients in the civil hospital were several persons labouring under other diseases, who, although in constant communication with, and frequently in attendance on, those suffering under the epidemic, were in no instance affected by it. In the military hospital, too, it was observed that the orderlies employed in attendance on the sick were not attacked in a greater proportion than others who were not so employed." 14

"It may also be stated, as another evidence on this subject, that, of 30 medical officers in constant attendance on the sick during the prevalence of the epidemic, all of whom, from the nature of their duties, were subject to great fatigue and anxiety, only one or two exhibited any symptoms of the disease, and then cases were comparatively slight." 15.

Passing over diseases of the brain, dropsies, and some other affections, we pause for an instant at the following statement:—

"In this comparison the rarity of *venereal affections* at Gibraltar is particularly worthy of notice, the proportion of admissions from that cause being scarcely one-third as high as among troops at home, which has a material influence in diminishing the extent of sickness. A reference to the General Abstract, No. I. of Appendix, will show that by far the greater proportion of these diseases are of that description which may not have originated in impure contact, and that in some years, particularly prior to 1824, cases decidedly of venereal origin were almost extinct in the garrison.

This rarity of venereal affections corresponds with what has been observed in the West Indies; but it cannot hence be inferred with the same certainty that the climate is decidedly unfavourable to their existence or propagation, because at Gibraltar, the strictness of the police regulations for the exclusion of all females likely to communicate venereal, may in some measure account for the comparative exemption enjoyed by the troops." 16.

The latter supposition we think the more probable.

2. *Malta.*

As to this Island, invalids, illustrious perhaps, are now dispatched, it may be useful to learn a few facts respecting it.

Malta, say the Reporters, being much exposed to the influence of the hot winds which sweeps over the deserts of Africa, and the sandy coast of Egypt and Syria, is subject to a higher temperature, particularly during the summer

months than is usual in the latitude of that island; indeed the heat at that period is little inferior to what is experienced in tropical regions. This high degree of temperature exists not only during the day, but owing to the radiation of the heat absorbed by the rocky surface of the ground, and the thick stone walls of the buildings, continues, with very little abatement, even after the solar influence has ceased; and sometimes, for a period of several weeks together, the thermometer maintains, during the night, the same height as throughout the day, creating thereby a feeling of extreme lassitude and oppression among all classes of residents.

In September there are frequent showers, increasing in frequency during October and November; but from December to February the rain falls with nearly the same violence as in the tropics, and the atmosphere continues surcharged with moisture till March; it then begins to clear, and during the five following months scarcely a drop falls, and the sky is generally without a cloud.

The most prevalent winds in Malta are from the south-east, south, and north-west. That from the south-east, termed the sirocco, is the most common; and the disagreeable effect it produces on the human frame is frequently adverted to in the medical reports. It prevails principally during the autumnal months. There is no regular land and sea breeze, which, in some southern stations, serves materially to modify the temperature.

The island has been generally esteemed very salubrious. But a reference to the mortality tables does not seem to bear out the supposition For, if we assume (which there are grounds for doing) 100,000 to have been the average during the period referred to in this table, the annual ratio of mortality would be about 1 in 39, or nearly $2\frac{5}{10}$ per cent., for all ages, while in this country it has been, on the average of the same years, only 1 in $47\frac{1}{2}$, or $2\frac{2}{10}$ per cent. so that, even as regards the indigenous inhabitants of both countries, Malta is by no means so healthy as Britain, but seems only to enjoy the average salubrity of the states in the south of Europe, where the mortality varies from 1 in 35 to 1 in 40 of the population annually.

But besides the mortality of ordinary years, on which the above estimate is founded, Malta, in 1813, suffered from the ravages of the plague, which cut off 4486 of the inhabitants, between April and November; and in 1837 cholera broke out, and also cut off several thousands. Here, therefore, as at Gibraltar and other stations liable to occasional visitations of pestilence, it is exceedingly difficult to fix exactly the ratio of mortality among the inhabitants, as so much depends on the series of years over which the observations extend.

For several years past, the force stationed in this island has consisted of the service companies of four infantry regiments of the line, two companies of artillery, and the Royal Malta Fencibles, a colonial corps composed of natives.

From tables it appears, that among every thousand soldiers serving in Malta, 1142 cases of sickness have been admitted into hospital annually on the average of the last 20 years, being more by 176 per thousand than in Gibraltar, though the mortality is less than at that station.

The casualties increase the average ratio of mortality to 18 7-10 per thousand of the strength annually, a sufficient proof that the climate of Malta by no means deserves that salubrious character which has, by some authors, been

assigned to it. We have already shown, by reference to the mortality among the natives, that it is much the same, in this respect, as the other states in the south of Europe, and the extent of mortality among the troops, during the above period, sufficiently corroborates that deduction. Were it not for the occurrence of the epidemic fever in Gibraltar in 1828, the average mortality there would have been lower than at this station by at least 5 per thousand annually; and we have shown that Malta is by no means exempt from visitations of pestilence in a much more aggravated form, though no instance of it has occurred during the years over which this report extends."

It is a singular thing that though, as has been already stated, there has been a larger proportion of admissions among the troops than in Gibraltar, yet on investigating the diseases by which they were occasioned we find that the excess is principally among those which seldom prove fatal, such as venereal affections, ulcers, and diseases of the eyes. This accounts for the extent of sickness being greater, though the mortality has been less than at that station.

Fevers.—The troops at Malta have suffered more from fevers than those at Gibraltar, and twice as much as those at home.

Diseases of the Lungs.—After furnishing a tabular view of their frequency, the Reporters observe:—

The climate of this island appears from the preceding results to be by no means favorable to persons predisposed to these diseases: the mortality is higher than at Gibraltar, and there is every reason to believe that could we have taken into account the number invalided, and who died on their passage, it would have proved even higher than at home. It is somewhat remarkable that, in a climate where the thermometer never sinks to the freezing point, where the temperature at night is generally within a few degrees the same as during the day, and where those sudden transitions from heat to cold, to which this class of disease is generally attributed in other countries, are exceedingly rare, the ratio of admissions should be only about one-fifth less than in the United Kingdom.

"It may serve as a striking illustration how little influence the climate of Malta is likely to have in diminishing the tendency to consumption, that the proportion attacked by that disease among the troops there during the last seven years has averaged 6 7-10 per thousand of the strength annually, while in the United Kingdom, during the same period, the proportion attacked of the Dragoon Guards and Dragoons was but 6 4-10 per thousand annually. Nor is the fatal influence of diseases of the lungs confined to troops alone; it extends in a corresponding degree to the inhabitants."

Here follows a table, and *it* is succeeded by these remarks:—

"This total of 6664 deaths in 13 years shows the mortality to have been 513 annually, which upon an average population of 100,000 of all ages is about 5 1-8 per thousand of the strength, being scarcely one per thousand less than among the troops, notwithstanding the night exposure of the latter in the course of their military duties.

"Though the climate of this island has been supposed favorable to diseases of the lungs, its inhabitants appear to suffer from them nearly as much as those of high northern latitudes; for the Returns of Sweden show that there were only 14,087 deaths from this class of diseases out of the whole population in one year, being in the ratio of 5 6-10 per thousand, or within a fraction the same as in Malta."

Surely this should make some physicians pause. It but adds another page to the chapter on the transportation of consumptive patients to hot climates —transportation to their grave.

Diseases of the Stomach and Bowels.—"This class of diseases prevails to a considerable extent: fortunately, however, not in any very aggravated forms: acute and chronic dysentery, which prove so fatal in the West Indies, being here comparatively rare. The annual mortality amounts altogether to 3 6-10ths per thousand of the strength, which is considerably higher than in Gibraltar, though the proportion attacked is less. In the Report of the West Indies it was stated that this class of diseases produced comparatively little mortality either among the officers or civil inhabitants; and we were hence led to infer that among the soldiers it was, perhaps, not so much attributable to the influence of climate as to the quality of the diet to which they were restricted. We now possess an indirect proof of the accuracy of these deductions in the fact, that in this island, where the troops enjoy the advantage of fresh provisions, the mortality among them by diseases of the bowels does not exceed that of the civil inhabitants."

The bowel complaints chiefly prevail among the troops from June to November, and nearly the same thing obtains with the civil inhabitants. The Reporters conclude:—

"These documents appear conclusive that diseases of the bowels are intimately connected with, if not induced by, increased temperature, a fact which, though often asserted, has hitherto been without any proof on so extensive a scale: consequently, in all tropical climates in which troops are employed, it is more requisite that their food should be nutritive and easy of digestion, than in temperate or northern regions, as the same quantity of salt meat which might there be consumed with comparative impunity may, from this cause, in warm latitudes, prove an active source of disease. We are well aware that no diet, however simple or well regulated, will secure to the soldier an entire immunity from diseases of this class when exposed to a high temperature in tropical climates; but it is hoped much may be done, by a due attention in this respect, to reduce their prevalence and diminish their fatal influence."

In several of the West India islands bowel complaints have been attributed to the exceedingly moist character of the climate; yet, from June to September, when scarcely a drop of rain falls in Malta, and the sky is without a cloud, the admissions and deaths from these diseases are at the maximum, whereas from December to March, when most rain falls, they are nearly at the minimum.

Diseases of the Brain.—In Malta, at all events, the mortality by diseases of the brain is not increased by a high temperature. But it seems at first singular that from June to September, the hottest months in the year, the deaths from apoplexy are scarcely half as numerous as from December to March, which are the coldest; and if the mortality for every year is examined separately, it will be found to exhibit the same feature with remarkable uniformity. The deaths by this disease, too, increase with the utmost regularity from August, when they are at the minimum, to January, when they attain the maximum, and diminish exactly in the same proportion during the other six months of the year. The infantile diseases reported under the head of convulsions follow the same law, though not so uniformly or in so marked a degree.

Prevalence of Venereal Affections.—The Reporters state that it is one of the most striking features in the above comparison that the proportion of venereal affections is to within a fraction the same as in the United kingdom, and more than thrice as high as in Gibraltar. Though there are certainly not the same facilities as in that garrison for preventing intercourse with those from whom the troops are likely to contract infection, yet as the police regulations for the seclusion of all females labouring under venereal are very rigidly enforced in Malta, the difference in the health of the troops in this respect is very remarkable. This peculiarity, taken in connection with what has already been observed in regard to the rarity of this disease in the West Indies, where no sanatory regulations exist on the subject, confirms the supposition that certain climates may possess an influence in favouring or retarding its propagation, though on what agency that influence depends it is impossible to determine.

We think that this, as well as the prevalence of syphilis upon the Continent, sufficiently prove the inefficiency of police regulations and surveillance. If that inefficiency is apparent in a small colony, how much more obvious must it become in a capital like this. Yet the wish has been privately and publicly expressed, to extend the surveillance of the police to the public women of London. Politically objectionable, if not impossible, it would propably, were it carried into effect, be medically useless.

We may quote one observation of the Reporters, because, mutatis mutandis, what is said of the diet of the Maltese Fencibles and British troops, applies more or less to the European resident in all hot climates, and even to the European in the hotter seasons of his own.

"The Maltese use very little animal food; bread, with the vegetables of the country, and occasionally a little fish, forms their principal sustenance; and the healthy and efficient state of the corps may no doubt partly be attributed to the important circumstance that, in becoming soldiers, they have not been required to change the simple diet which nature seems to have pointed out to the inhabitants of all southern latitudes as most conducive to their health. The cost of the ration to Government is exactly the same as the stoppage from the soldier, so that while the public sustains no loss, the Maltese, even upon his reduced rate of pay, has the same surplus as the British soldier whose habits require a more expensive diet." 29.

Ionian Islands.

The islands comprised in this military Command are Corfu, Paxo, Santa Maura, Cephalonia, Ithaca, Zante, and Cerigo. With the exception of the last, which is considerably detached from the others, they extend nearly in a continuous chain from north-west to south-east, skirting the shores of Greece from the entrance of the Adriatic to the southern extremity of the Morea.

The troops employed in this Command consist of the service companies of several regiments of the line, two companies of artillery, and a party of sappers and miners; the force has varied from about 3,000 to 4,500, according to circumstances.

The climate of these islands has proved much more inimical to our troops than that of the other Mediterranean stations. Compared with Malta the deaths are as 28 3-10 to 18¾, and with Gibraltar as 28 3-10 to 22¼. Among the natives of the Ionian islands, the mortality does not appear to be higher than among those of Malta or the South of Europe. Within the last six years,

however, a very great reduction has taken place in the mortality of the troops, a circumstance partly, at all events, owing to improved barrack accommodation, drainage, diminution of work for the men, &c.

The prevalence and fatal character of fevers is one of the leading features of the climate of the Ionian Isles—nearly one-half of the admissions and deaths being attributable to that alone. Remittent fever has cut off about 9 per thousand of the strength annually in the Ionian Islands, though not more than 1 in three thousand have died from the same cause in Malta, or even in Gibraltar, if we exclude the epidemic of 1828. Though not so prevalent, this disease is nearly as intense as in the West Indies, 1 in 11 having died of all those attacked, and occasionally at some of the stations even as many as 1 in 3.

The prevalence of remittent fever is in a great measure confined to the months of July, August, September, and October—it sometimes commences in June and continues till November, but rarely occurs during any other period of the year. It is stated that those who have had remittent fever in the summer are particularly liable to intermittent in winter, even if they have removed to a station where the latter is otherwise rare: for instance, after the removal of the 7th Fusiliers to Malta, in 1828, almost every individual who had suffered from remittent in the Ionian Islands was attacked by intermittent; the same was observed in the cases of fever which proved so fatal to our troops at Walcheren.

Diseases of the Lungs—The Reporters make a not unimportant statement, *that*, notwithstanding the variable character of the climate, the rapid alternations of temperature, and the tempestuous weather which frequently prevails in this Command, diseases of the lungs are both less prevalent and less fatal than at Malta or Gibraltar: the admissions into hospital by that class of diseases in these three Commands being respectively as 90, 120, and 141, and the deaths as 4-8, 6-0, and 5-3 per thousand of the strength annually. The principal exemption in the Ionian Islands is from catarrhal affections, which are not half so prevalent or half so productive of mortality as in the other Mediterranean stations, or in the United Kingdom. Most of the deaths arise from consumption; but neither is the proportion attacked so high nor the fatal cases so numerous as in Malta, where there exists a comparatively equable temperature, and that mild condition of the atmosphere which is supposed favourable to persons predisposed to that disease. In Malta, on the average of twenty years, about 6 per thousand of the troops have been attacked annually by consumption, and in Gibraltar and the United Kingdom nearly the same ratio, while in the Ionian Islands only 5 per thousand have been attacked, and the deaths have been fewer in the same proportion. This, however, may be in some degree attributable to the fact, that, in Malta and Gibraltar, one third of the troops are under 25, whereas, in the Ionian Islands, about a fifth only are under that age. Inflammation of the lungs is not more frequent in the islands, where the atmospherical vicissitudes are frequent and sudden, than in Malta.

Delirium Tremens is five times as prevalent here as in Gibraltar or Malta. The facilities for indulgence in ardent liquors are greater.

"Here, as in most of the other cltmates in which there is great facility in

obtaining the means of intoxication, the consequences of this vice, as shown in the number of admissions and deaths from *delirium tremens*, are annually becoming more apparent. On an average of the eight years immediately subsequent to 1821, when this disease began to be specially noticed in the Medical Returns, the proportion of admissions and deaths was scarcely one-third as high as during the last eight years included in this Report.

In this fact we have a strong proof that intemperance cannot well be assigned as the principal source of those sudden accessions of sickness and mortality which occasionally take place in these islands, because though it appears to have been materially on the increase in this Command during the last few years, the troops, instead of being more unhealthy, have been rather less so than before. We state this not as an apology for, or encouragement to, intemperance, but to prevent causes being assigned for disease which are not warranted by numerical results." 37.

Venereal Affections.—From these there is a comparative exemption in this Command. They are nearly as rare as in Gibraltar, and thrice as much so as in Malta: but this may, in some measure, be attributable to the precaution, of subjecting all public prostitutes to a weekly inspection, and sending those found diseased to a lock hospital. This would seem to contradict an observation which was made in reference to venereal affections in Malta. Perhaps, the limited size of the Ionian Islands may render the business of inspection less difficult than in places stocked with a great population. Perhaps other and less obvious circumstances operate.

The Plague.—About the middle of December, 1815, the plague broke out in a small village called Marathea, on the south side of the island of Corfu, a low situation abounding in stagnant pools and marshes, and at all times unhealthy. In the preceding autumn remittent fever had been very common throughout the whole of that district, and the weather, for some months previous to the appearance of the plague, had not been so cold or rainy as usual.

So rapid was the progress of this pestilence, that more than a fourth part of the inhabitants of Marathea were cut off by it in a few days; and before any steps could be taken to arrest its progress, it had begun to show itself in several of the adjacent villages. As soon as its existence was officially reported, measures were adopted for cutting off all communication between the infected districts and the capital; strong cordons of troops and police were posted round each village in which the disease had made its appearance; the inhabitants were shut up in their respective residences; no communication was permitted between them; and the approach to the capital was guarded by a double line of troops, through which no one was allowed to pass from the interior without performing 14 days' quarantine. Owing, it is supposed, to these precautions, the disease was confined principally to the upper and lower districts of Leftimo, in which it originally broke out, and the capital entirely escaped its ravages. It finally disappeared about the middle of May, 1816.

These facts would tell, of course, very strongly, in favour of the doctrine of contagion. They would naturally be trusted and confidently appealed to by the believer in it. The advocate of the influence of unhealthy localities would find some countenance for *his* opinions, in the stagnant pools, the marshes, the insalubrity of Marathea. Each would appeal, the contagionist

most confidently, to this particular case, and candid men would admit the appeal to be reasonable.

But let us read on.

"After the plague had ceased in Corfu, it broke out, in the beginning of June, 1816, in the village of Comitato in Cephalonia, in a situation mountainous, rocky, barren, and almost destitute of water and vegetation, the very reverse of the district in which it first made its appearance at Corfu. In a few days it had extended to several families in the village, and so rapidly fatal did it prove, that death followed in every case within a few hours; indeed, in some instances, whole families were cut off in the course of one night. Owing to its appearance not being immediately reported, the same measures which had been resorted to at Corfu for arresting its progress could not be adopted till the end of June; but in the meantime, it did not extend beyond the village in which it first broke out, and entirely disappeared by the middle of July, after destroying from 65 to 70 out of a population of 700. In this instance, the military suffered less than at Corfu, only one case occurred among them, and that terminated fatally."

Nay, even the influence of season proved dubious, or, we should rather say, inert. For the Reporters assert that, unlike the ordinary course of febrile epidemics, which generally become more mild in their character, as they are about to disappear, the last cases of this disease, both at Corfu and Cephalonia, were equally severe and fatal as the first. Nor did the period of its commencement at Corfu correspond with that in which epidemics generally prevail in the Mediterranean, viz. from July to October; on the contrary, it appeared during what is generally the healthiest season of the year. In neither case did the weather exert the slightest influence on the character or progress of the disease: it was just as virulent in the middle of winter in Corfu as in the middle of summer in Cephalonia.

The Reporters next examine in detail, the medical statistics of Corfu, Paox, Santa Maura, Cephalonia, Ithica, Zante, Cerigo, and Parga. Into these we do not deem it requisite to go, and we turn accordingly to the General Summary, which presents us with an abridged statement of the main results. From this summary we glean, as the principal fact, that instead of extending over the whole Command as they would be likely to do if resulting from the operation of any general cause, the sudden accessions of mortality which occasionally take place are frequently confined to one island, while others, in the immediate vicinity, are exempt. In 1818, for instance, when 50 per thousand of the strength died at Zante, the mortality at Cephalonia, only a few miles distant, was but 9 per thousand. In 1817 and 1819 the troops were unhealthy both at Santa Maura and Zante, while those of Cephalonia, lying between them, experienced no more than the usual degree of mortality, and in 1828 and 1829, though a fourth part of the force was cut off at Santa Maura, those at Corfu and Zante were subject to no great degree of sickness, and even those in Cephalonia, immediately adjacent, did not suffer in any marked degree. Various other instances of a similar nature might be quoted,

Deductions from the Preceding Report.

The Reporters observe, that the mild climate of the Mediterranean has generally been considered favorable to the cure or prevention of consumption and other pulmonary affections. To ascertain whether this supposition

is well founded, or the reverse, is manifestly an object of much importance to medical science, and can only be determined by investigations extending over a long series of years, and including large masses of individuals. The experience of civil practitioners, however carefully recorded, is on too limited a scale to warrant general conclusions on a subject of such magnitude; yet, hitherto, no other source of information has been available for that purpose, and it is not surprising, therefore, if their conclusions, when submitted to the test of numerical calculation, are, in many instances, found to be erroneous.

They go on to remark:—

"We have already alluded to this subject in a more general way, in the course of our observations on diseases of the lungs in each of the Mediterranean Commands, but we can now speak with more certainty from results extending in each instance over the same seven years, and embracing a large number of individuals of the same profession, the same age, the same habits, and having, except at Gibraltar, the same diet. This affords so accurate a standard of comparison as to place beyond a doubt the interesting fact, that, except in the Ionian Islands, the liability of troops to consumption in the Mediterranean stations is even greater than in the United Kingdom. We have not compared the deaths by consumption for a similar period, because conclusions could not have been drawn in regard to the relative mortality with the same accuracy, so many labouring under that disease having died on their passage home or after their arrival in this country; but from all the information we have been able to obtain there can be no doubt that if due allowance is made for these casualties, the proportion of deaths also, among those attacked by consumption, will be found fully as high in the Mediterranean as in the United Kingdom.

We might have carried this comparison further, and shown how little influence temperature has on this disease by the fact that it is still more prevalent and fatal in the Mediterranean than in North America, where the soldier has frequently in the course of his duty to be exposed to the night air, when the thermometer is several degrees below zero."

These facts, they continue, offer a striking contradiction to the popular idea regarding the influence of sudden atmospherical vicissitudes, and rapid alternations of temperature, in inducing this disease; but it is even more remarkable that similar results should be obtained in regard to the relative prevalence and mortality by pleurisy and inflammation of the lungs, which are supposed to be still more influenced by these agencies. From a table it appears that inflammatory affections of the lungs are nearly twice as prevalent in the Mediterranean as among the same number of troops in the United Kingdom, and that in the mild climate of Malta they are also twice as fatal.

Here we must conclude our present notice of this valuable Report. North America has been yet unexplored, and to that region, replete as it now is with painful interest, we shall shortly turn.

We would direct attention, before we conclude, to this as well as to the previous Report on the West Indies. They will tend to disabuse the mind of many erroneous and some injurious impressions, and they will, we are confident, materially assist the progress of medical science.

ON DISEASES OF THE URINARY ORGANS.

I. Urinary Diseases and their Treatment. By *Robert Willis*, M. D., &c. &c.

III. Traite des Maladies des Reins, &c. Par *P. Rayer.*

[Continued.]

In our last article,* we presented the views of Dr. Christison on the important subject of albuminous urine. Those views occupied (for they were elaborate and precise) the whole space which we could devote to urinary disorders, and necessarily diverted us from the pages both of M. Rayer and of Dr. Willis. We return to those gentlemen, and shall pursue, we will not say complete, the examination of the maladies of which they treat.

We have observed upon a previous occasion that it is difficult to amalgamate the observations of M Rayer with those of the other authors who have been before us. The best plan appears to us to take that author who is most copious or most correct on any particular point, and, making his page the text for the time, to collate with it what remarks on the part of another may seem calculated to correct or amplify it.

Pursuing the arrangement and order adopted by Dr. Willis, we may still occupy ourselves with those:—

Morbid States in which Certain Matters, being Constituents of the Blood, are contained in the Urine.

1. Of those morbid states, sero-albuminous, or, as it is commonly called, albuminous urine is the most important. That has been already amply discussed, and we return to that condition of the urine, in which it contains the oily and albumino-fibrinous elements of the blood.

2. *On Oleo-Albuminous Urine.*†

a. Instead, says Dr. Willis, of a simple albuminous impregnation, there are numerous cases on record in which the urine has been secreted with such an addition of oleaginous particles that it has borne the closest resemblance to milk, or to water with which a quantity of cream had been mingled. Such a state has been observed to occur in the course of certain diseases.

Case. A gentleman, after a succession of long journeys, in the course of which he enjoyed excellent health, returned home in the same satisfactory state. A few days after his arrival, however, he was attacked with slight

---

* Vide No. 60. Pp. 349—397

† "Chylous urine" of Prout.

diarrhœa, and a trifling catarrhal affection of the chest; and by-and-by he perceived that his urine, which was rather more scanty than usual, was of a milky-white color, but passed without any uneasiness. On standing, this urine, which had no peculiar smell and reddened litmus paper, let fall a precipitate of a white cheesy looking substance, amounting nearly to one half of the whole quantity of fluid evacuated. Intercepted on a filter and washed with distilled water the deposite was found to have all the properties of caseum, or coagulated albumen, becoming transparent and horny when dried, being insoluble in alcohol, swelling up and turning gelatinous when digested in acetic acid, and forming a deep violet blue colored solution when treated with hydrochloric acid. Heat applied to the urinous fluid, freed from the deposite by filtering, threw down an additional precipitate of albumen, which yielded a considerable quantity of oily matter when treated by boiling alcohol. Tested farther, the urine was found to contain its usual salts and constituent, and in addition a notable quantity of acetic acid.

This same condition has been observed during the exhibition of certain medicines. Thus M. Chevalier found the urine of a patient under the influence of mercury, which had become white and opaque or milky, to contain a large quantity of albumen mixed with oleaginous matter.

In other instances, no disease would seem to have existed, nor was any powerful medicine in the course of exhibition.

Case. A creole of the isle of France, in the apparent enjoyment of perfect health, was in the habit of passing urine of the whiteness, consistence, and opacity of milk. This fluid was neutral; it had a sweetish saline taste that was not unpleasant. It was coagulable by heat, and the solid substance presented the most perfect analogy to caseous matter. Had this urine been tested more particularly, it would in all probability have been found to owe its whiteness and opacity in great part to the presence of an oleaginous matter.

In these, and in many other similar cases, the opacity of the urine will be seen to have been attributed to the presence of the albuminous principle in the shape of caseine. But M. Rayer doubts the justice of this notion, and disputes the accuracy of the observations which have given birth to it. In a great number of cases which he had had an opportunity of examining in an extensive private practice, and in the ample wards of the Hopital de la Charité, he had never discovered the true milk-globule in urine, save in a single instance, and in this the patient was detected scheming—she had mixed a quantity of milk with her urine after it was discharged from the bladder. The milky appearance of the urine whenever it occurs, is due to the suspension of oily matter in the fluid impregnated with albumen.

M. Rayer offers the following as a summary of what he thinks established on the subject of "milky urine."

1. The occurrence of milky urine as a natural circumstance,* though generally admitted, is doubted, if not denied, by M. Rayer.

2. The existence of a certain quantity of fatty matter in the urine gives to it a milky appearance.

---

* That is (we suppose) independently of deception.

3. Caseine and milk globules have hitherto been only met in urine rendered milky artificially.

4. Urine, really milky, may be easily distinguished from chylous, or oleo-albuminous, or purulent urine, by re-agents and the microscope.

5. Milky urine should contain caseine coagulable by acetic acid, and should present milk globules appreciable by the microscope.

We return to Dr. Willis, and we pass to some modifications of the oleo-albuminous urine.

"But," he observes, "the milky urine hitherto described is not the only variety of this fluid that is encountered. The oleo-albuminous matter is not always suspended as it were in the menstruum, and apt to subside to the bottom when the mixed fluid is allowed to stand for some time at rest. Occasionally it is intimately incorporated with the fluid evacuated, and instead of falling to the bottom as a precipitate, possesses the property of coagulating spontaneously and entangling the whole of the water in its meshes, so as to form one homogeneous tremulous mass like jelly, or the fresh coagulum of the blood.

The albuminous principle here obviously presents the distinguishing feature of the fibrinous modification of albumen—spontaneous coagulation. Urine of this description presents itself with every degree of opacity. Sometimes it is of a pearly-white colour and nearly as opaque as fresh-drawn milk; at other times it is almost transparent, of an amber-yellow tint, and in its general appearance very much like orange jelly; in other instances still the colour is reddish, and the mass closely resembles pale red-current jelly. This singular coagulum by-and-by begins to separate into two portions, exactly as blood does, the one watery or serous, the other, freed from moisture by gentle pressure, firm, elastic, fibrous, and possessed of all the sensible as well as chemical properties of fibrine.

The kind of albuminous urine now described is by no means common, especially in Europe. Different practitioners have, however, met with a case or two of it. I remember Mr. Abernethy used to mention the case in his lectures of a female, who at times discharged urine of such a kind that had it been allowed to cool in a proper shaped vessel might in so far as appearance went, have been served at table as blanc-mange. The patient Mr. Abernethy met with, after the lapse of a dozen years or so, looking fat and well, enjoying tolerable health, and still occasionally voiding urine of the old description. Dr. Prout, in his 'Inquiry,' has particularly described two cases which occurred in the practice of Dr. Elliotson, in which the urine at one time bore a strong resemblance to blanc-mange, and at another to orange jelly. The same excellent authority, in his Gulstonian Lectures of the year 1831, informs us that, in the course of his practice, or through the kindness of friends, he had seen as many as eight cases of this spontaneously coagulating oleo-albuminous urine. I have myself met with one, in which the coagulum, from the presence of the colouring matter of the blood, resembled pale red-current jelly, and which from this circumstance I have referred to the section on Hæmaturia, although I believe the renal affection to have been of the same essential description as that in which the urine is milky, and the coagulum white, or yellowish and opalescent." 164.

Dr. Willis relates the particulars of a case, that of M. Da Costa, which he extracts from La Presse Medicale. It is not necessary to go into it.

c. Occasionally oily matter has been found in large quantity in the urine. A man, writes Dr. Willis, was brought to the Hôpital de la Charité in a state of asphyxia from the fumes of charcoal, where he died in the course of the day. The blood in the heart and great vessels, and the urine in the

bladder, were alike remarkable from containing a quantity of yellowish oily globules swimming on their surface. Several other cases of a similar kind have been recorded. In a paper on the discharge of fatty matters from the alimentary and urinary passages, Dr. Elliotson has given the case of a lady aged 79, with whose urine about one third of an ounce of oil was discharged daily for some considerable time during her last illness. This is trifling, however, to the quantity of oil which Bachetoni drew off by the catheter from the bladder of a certain noble damsel (virgo quædam nobilis). Here two ounces were discharged at once on two different occasions. But as the lady had taken four ounces of almond oil some days before as an aperient, and was labouring under a variety of hysterical and anomalous symptoms, it is just possible that, wishing to be thought *extraordinarily* ill, she may have imposed upon her physician. The rank of the individual in these cases goes for nothing.

d. The occurrence of oleo-albuminous urine would certainly seem to be far from inconsistent with good health. Mr. Abernethy met the subject of his case, after the lapse of a dozen years, looking fat and well. In one of the cases which Dr. Prout has detailed, the urine was positively known to have been secreted with the morbid characters it presented for a period of five years at least. Here the general health, was not at all affected: neither were the reproductive functions interferred with, the subject of the observation, a female, having conceived and borne a living child in the interim.

The disease would appear to prevail endemically in certain regions, for example, in Brazil.

e. On the treatment, Dr. Willis, though not silent, says nothing.

3. *On the Discharge of Urine having all the Elements of the Blood mingled with it,*—HÆMATURIA.

The discharge of blood or of bloody fluid from the urinary passages is almost always observed either as a sign and sequence of some disease existing in their course, or still more frequently, perhaps, of the presence in some point of their interior, of a calculous concretion. Yet idiopathic hæmaturia undoubtedly occurs, and *that* may be naturally linked with the oleo-albuminous alteration—the two often alternate. Many of those who pass spontaneously-coagulating urine, observe it to be of a muddy amber-yellow, and of a dilute or deeper red-currant jelly-colour at different times, obviously according to the predominance of the several principles—the oil, albumen, fibrine, and red globules, whose presence gives to the discharged fluid, its distinguishing characters, especially its colour.

It exists, as an endemical disease, in some countries. This is the case in the Isle of France. M. Salesse, a native practitioner there, states that three-fourths of the children are affected with hæmaturia at one time or another. In these cases the bloody urine is generally observed to alternate with that which is chylous or oleo-albuminous.

"All these endemic hæmaturias I am inclined to refer to the same state of kidney as that which produces the albuminous, oleo-albuminous, or chylous and spontaneously coagulating urine of homogeneous appearance, and various shades of colour, from the pearly white to the current-jelly red. The colouring matter of the blood in the whole of these cases seems to be entirely accidental; some-

times it is altogether absent; at no time does it exist nearly in the proportion in which the albuminous principle in one or other of its modifications occurs. The albumino-urinous fluid poured out under these circumstances has all the characters of a secretion. The term hæmaturia would probably be advantageously restricted to those cases in which there was simple exudation of blood from some point of the mucous surfaces lining the urinary passages, or direct extravasation from the vessels of the kidney. Here the fluid discharged is less *albumino-urinous*, than a *mixture of blood and urine;* the vital fluid and the excretion only chance to pass off together. In this case the colouring principle of the blood is in large proportion, and along the fibrine is precipitated from the urine in the shape of a dark brown sediment. Under such circumstances hæmaturia commonly indicates the existence of some special disease of the kidneys or bladder, or is caused by a foreign body, as a calculus, lodging in their interior. It also frequently accompanies the course of a variety of acute and dangerous diseases. The urine in small-pox for instance, is often bloody. So is it in purpura, in typhoid fever of bad type, in scorbutus, in acute anasarca from exposure to cold, &c. Sometimes the blood presents itself in the urine in the shape of small distinct coagula, or with its serum and colouring matter diffused through that fluid, whilst its fibrine is in threads and masses." 174.

The source whence the hæmorrhage occurs must, in the great majority of instances, be the mucous lining of the renal cavities, ureters, or bladder. The latter is the organ that most frequently furnishes the blood. Dr. Willis observes that, in some subjects, it seems to act very much in the same manner as the membrane of the rectum in hemorrhoids, and to relieve itself from time to time by pouring out a quantity of blood, more or less, from its surface.

But, he goes on to state, by far the most common cause of renal, ureteric, and vesical hemorrhage, is either the presence of a foreign body in the pelvis of the kidney, in the course of the ureter, or in the urinary bladder. The kidneys, like so many other glandular parts endowed with offices proper and peculiar to themselves, are but sparingly supplied with nerves of common sensation. Whence it often happens, that extensive structural changes are found to have taken place in their substance, even before mischief to them was apprehended. In the same way they have frequently contained large calculi, the existence of which would hardly have been suspected, but for the discharge of bloody urine after somewhat violent or continued exercise, such as a long walk, a smart ride on horseback, or a drive in a carriage over a rough road. When hæmaturia follows severe pain in the lumbar region, which shoots down into the thigh, causes retraction of the testis, and is accompanied with sickness and vomiting, we know that a calculus has made its escape from the pelvis of the kidney, and is making its way down the ureter, a canal which, as it performs less of a special function, is endowed with a larger share of common sensibility than the kidney. Of the cause and source of the bloody urine, and sometimes of the pure blood, that is passed when there is a calculus in the bladder, there can be no doubt.

Occasionally hæmaturia is an indication of malignant disease of the kidney; occasionally of a fungoid tumor produced from the inner surface of the bladder, and perhaps still more frequently of an enlarged and altered condition of the prostate gland.

Hæmaturia, then, though occasionally an idiopathic or proper disease, is, in the great majority of instances, a symptom. Its presence should always breed a suspicion of mischief in some part of the urinary apparatus. The

determination of *its* presence or absence must, of course, be the object and the work of particular investigation.

We pass to the *Treatment*, on which Dr. Willis says comparatively little. Hæmaturia depending on various causes, its nature must be determined in each case, and the remedies chosen accordingly. If plethora obtains, the antiphlogistic regimen, a mercurial followed by a saline purge now and then, cold enemata, light covering of the pelvis, &c. may all be required. It is seldom necessary or advisable to abstract blood generally in hæmaturia; the subjects of the affection are rarely of a constitution to stand this measure. The local abstraction of blood by cupping from the loins or perinæum, by the application of leeches in the latter situation or to the verge of the anus, however, may sometimes be had recourse to with advantage. When the hæmaturia is vicarious of some other flux, the menstrual, for example, or the hæmorrhoidal, the suppressed or impaired one should be, *if possible*, restored, a thing more easy to be recommended than done. Dr. Willis adds:—

"Some of the articles, however, that seem to exert their influence upon the lining membranes of the urinary passages more especially, may sometimes be tried with excellent effect. The uva-ursi in extract, the diosma crenata or buchu, the oil of turpentine, and even the cantharides used cautiously, and in such a way as to secure their tonic, without inducing their stimulating effects, will often produce the best effects. Where there is pain and irritation, opiates, the warm bath, &c. must be had recourse to. Where the disease is plainly connected with a lax and debilitated habit, general tonic medicines, the preparations of iron, bitters, the bark, &c. will be the appropriate remedies.

It sometimes happens, when the discharge of blood is considerable, that the fluid, accumulating in the bladder, coagulates there, and forms a solid mass which it is often extremely difficult to get away. Under these circumstances we have been recommended to introduce a sound or catheter for the purpose of breaking down the clot. This advice must be acted upon with great caution; much mischief might ensue upon its being enforced by a rash or even a bold hand. It will probably be better to pass as full-sized a catheter as can be made to enter, and by means of a syringe fitting into the outer orifice of the instrument, to endeavour to suck out the coagulum; or warm water may be repeatedly injected so as to wash down the clot." 181.

The Sixth Chapter of Dr. Willis' work, at which we have arrived is devoted to the—

MORBID STATES IN WHICH THE CONSTITUENTS OF SECRETIONS AND ALTERED ELEMENTS OF THE BLOOD ARE DISCHARGED WITH THE URINE.

This chapter is, in a great measure, founded on the observations of M. Rayer. Dr. Willis observes, that the number of matters produced by the surfaces of the urinary passages themselves, and by the organs more immediately in relation with these, which are upon occasion discoverable in the urine, is much more considerable than might at first have been supposed. Thus we have scales of the epithelium, mucus, pus, the prostatic fluid, and the spermatic fluid, mingled with the urine. Besides these, we have bile; according to some, milk—and pus, the product it would appear of an in-

flammatory state of the blood, or of parts or surfaces in a peculiar pathological condition.

A. *Epithelium.*—The mucous surface of the urethra is lined with epithelium, which is constantly throwing off minute plates or squamæ. M. Vigla, has, by means of the microscope, discovered these in multitudes mingled with the urine. The scales, writes Dr. Willis, are easily distinguished; they are exactly like those which may be procured for examination in a moment, by drawing the point of a finger over the inner surface of the lip or cheek, and transferring the moisture to the table glass of the microscope. They present themselves as small, ragged, generally round, but often irregular, transparent scales, in the middle or towards one side of which a darker and evidently raised point may commonly be distinguished, by which they probably adhered to the mucous surface. These squamæ are sometimes present in such numbers, that they form a considerable part of what is called the mucous cloud of healthy urine.

M. Rayer observes that, in the female, such scales may come from the pudendum; and that he has seen similar ones in urine taken, after death, directly from the calyces and pelvis of the kidney.

B. *Mucus.*—The source of this is obvious. Its quantity varies in the urine of different individuals, and of the same individual at different times. Nay, the quantity of mucus varies in successive portions of the urine voided at one time.

The mucus of the urine, continues our author, when abundant is easily collected for examination upon a filter. When in small quantity, it makes no show upon the surface of the filter, and must be withdrawn from the bottom by means of the pipette. Under the microscope the mucus of the urine presents itself in two forms,—as an amorphous matter, and as a congeries of flattened, rounded, colourless globules, granulated on the surface, and not distinguishable from those of pus, save by the difference of the chemical effect of ether, which digested on pus becomes charged with oily matter, but digested on a quantity of proper mucus-globules remains free from any such impregnation. But we need not add that mucous membranes readily secrete pus, and then the globules gain the coating of oily substance.

M. Rayer makes a variety of observations on the mucus of the urine, which are too elaborate for our pages. The *frothing* seen on agitating the urine is in all probability due to it, and is much increased if albumen also exists in the fluid. As the result of his microscopic observations, M. Rayer assures us, that if we examine as soon as possible after death, the mucus of different portions of the urinary organs, we find:—

1. In the calices and pelvis of the kidney, the mucus often presents small lamellæ or globules, and occasionally both.

2. The mucus of the healthy bladder contains small lamellæ or globules. When its quantity has been augmented by any irritation of the organ, the number of globules is always very great.

3. The mucus of the urethra contains epidemic scales, and very numerous globules during and after gonorrhœa.

4. The mucus is evidently a complex substance, of which a particular

principle *mucus* forms the characteristic element, and to which may be added lamellæ, mucous globules, and albumen.

To return to Dr. Willis. He refers for an instant to the tough ropy mucus poured out in great quantities from the inner surface of the bladder, in chronic inflammation of the mucous membrane.

The secretion, he believes, owes several of its distinguishing qualities to this, that it has been chemically acted upon by an alkali, generally the ammonia. In the disease in question, it seems, he remarks, very probable that the exhalents are actually pouring out pus, but that this, by combining at the time of its formation either with ammonia evolved from a portion of urine partially decomposed, or with a neutral salt, such as the chloride of sodium, loses its globular constitution, and becomes the homogeneous ropy mass we observe.

c. *Pus.*—This is no unfrequent addition to the urine, and its characters should be familiar. Purulent urine, observes Dr. Willis, when voided, is turbid in a degree proportionate to the quantity of matter that is mingled with it. Left at rest the globules of pus speedily subside to the bottom, where they form a well defined stratum of variable thickness. This stratum has generally the ordinary features of pus. When examined under the microscope, pus is found to consist of congeries of whitish globules of twice or more than twice the diameter of the blood-globules, of pretty regular general spheroidal figure, although rugged or granulated on the surface. Purulent urine is always albuminous, but it varies in all other physical and chemical qualities. Sometimes it is of high, in other cases of low specific gravity; sometimes it is highly acid, at other times neutral or positively alkaline; sometimes it is very little disposed to run into putrefaction, at other times it can scarcely be kept for two or three days without undergoing decomposition. When alkalescence and putrefaction have taken place, the pus loses its original and distinctive characters. The globules disappear, and the whole is resolved into a tenacious, glairy, and often semi-transparent mucilaginous looking matter, like thick dirty-coloured white of egg.

But pus is sometimes eliminated by the kidney, independently of any disease of the urinary organs. The recent discovery by Mr. Gulliver, of the existence of globules of pus in the blood, both explains and confirms this fact. Professor Chelius, of Heidelberg, observed the urine to become loaded with pus, in a patient labouring under a purulent deposite, within the bag of the pleura, in consequence of a penetrating wound of the chest. The stuff that subsided from the urine could not be distinguished from that which flowed out of the chest by the wound. In puerperal fever, too, a purulent or purulent-looking deposite from the urine is sometimes observed to occur critically. We lately presented a paper by Dr. Mouatt, originally contained in the Calcutta Journal, in which were several well-marked instances of discharge of pus in the urine, in cases of purulent deposits; and we may add, that we have witnessed two such cases ourselves.

d. *Prostatic Fluid.*—This is described by Berzelius, as being clear as water, and susceptible of being drawn out into a thread of a certain length. The fluid which exuded from the cut surface of the prostate of an adult male subject was found by M. Vigla to consist almost entirely of a congeries of very minute globules; and these, or globules presenting the same appear-

ance, he detected on different occasions in the urine; but M. Rayer admits that he knows no method of distinguishing the prostatic fluid in it.

e. *Spermatic Fluid.*—The spermatozoa, the distinctive peculiarity of semen, have been detected on many occasions in urinary deposites. Dr. Willis remarks:—Once and only once, in one of the cases, were the animalcules found still alive. At all other times they were dead. The presence of these animalculi might possibly give a hint as to the cause of certain anomalous cases now and then encountered in practice, accompanied with great prostration of strength and much emaciation without any recognizable cause. It is possible that the presence of small quantities of the prostatic and spermatic fluids in the urine may have been the cause of the difficulties experienced by chemists in determining the precise nature of certain mucous matters now and then discovered there.

M. Rayer enters much more elaborately into this matter. We do not, however, deem it requisite to follow him, the main facts being, *that* the spermatic fluid may be mixed with the urine, naturally after coition, an involuntary emission, &c., or, morbidly, under other circumstances—and *that* the detection of the spermatozoa in the urine constitutes, in the majority of instances, the evidence of their presence.

f. *Bile.*—Every body knows that, in jaundice, the urine is tinged with bile. The urine, says Dr. W., is either transparent or deposites. The sediment may consist of various matters, but all are dyed with bile; sometimes it seems to consist entirely of yellow flocculi, which remain upon a filter, and prove to be the colouring matter of the bile. A piece of linen dipped in bilious urine and dried, is stained of a bright yellow. Bilious urine having a little hydrochloric acid added to it, commonly becomes of a bright green, sometimes it is turned brown, a variety of effect which appears to depend on the modification under which the colouring matter occurs in the urine. When a quantity of nitric acid is mixed gradually with an equal measure of bilious urine, the mixed fluid becomes first green, then blue, violet, red, and finally yellow, these changes of color succeeding one another in the course of a few seconds. This phenomena is distinctive of the presence of the peculiar coloring matter of the bile.

g. *Yeast.*—Dr. Willis concludes the chapter by stating that, in a case of diabetes Dr. Prout observed the urine to contain a white milky-like fluid, precisely similar to chyle, which slowly subsided to the bottom of the vessel, and by the rapidity with which the vinous fermentation was produced, seemed to act like yeast. M Vigla also met with a deposite of this kind, but it was in a vessel that had been used repeatedly to receive the urine of a diabetic patient. M. Quevenne, from a chemical analysis of the matter, pronounced it to be yeast, as energetic as that of beer, and perhaps identical with it. The yeast in these cases was, no doubt, formed by the decomposition of portions of urine which had already sojourned in the vessels from which it was obtained.

We have arrived at the seventh chapter of Dr. Willis work, appropriated to the:—

MORBID STATES IN WHICH PRINCIPLES FOREIGN TO THE URINE AND THE BLOOD, AND DERIVED FROM NONE OF THE NATURAL CONSTITUENTS OF THESE FLUIDS, ARE ELIMINATED BY THE KIDNEY.

This chapter contains but one section, sweet, though not short, for its subject is sugar and diabetes. The notions of Dr. Willis upon this subject may be hinted in the following quotation:

"I allude to the disease generally denominated *diabetes mellitus*, in which the economy appears to be guilty of a kind of felo-de-se, in turning food of all kinds into sugar, which being taken up and circulated with the blood produces effects of a most distressing kind, and finally proves fatal either by wearing out the body, engaged in a hopeless struggle to free itself from a matter which to all intents and purposes acts upon it as a poison, or by inducing incurable disease in some vital organ." 195.

In ordinary digestion, sugar taken into the stomach is converted into alimentary matter; in diabetes, alimentary matter is converted by the system into sugar.

Melituria is the term by which Dr. Willis describes *diabetes mellitus*. He mentions a circumstance in reference to the comparative frequency of diabetes which will take some physicians by surprise.

"In this country, and in London especially, it is by no means uncommon; it is often observed in our hospitals; few have practised for any length of time without meeting with an instance or two, and my friend Dr. B. G. Babington has informed me that, on occasion of preparing to keep an *Act* at Cambridge during his college life, his father the late Dr. Babington then in very full practice had found him opportunities of seeing as many as *twenty-three cases of the disease at one time*, in every one of which the sugary state of the urine was ascertained." 197.

Dr. Babington must have been in very full practice indeed to have had twenty-three cases of diabetes mellitus on his own hands at any time. Nor can we credit it. Probably Dr. Babington made interest for his son among his medical friends and beat up saccharine recruits from all quarters. Even then the muster was large.

We shall merely notice such parts of Dr. Willis's observations upon melituria as may be striking or useful. It would be idle on our part at this time of day, offering a complete account of the malady. The first point to which we shall allude, is the proven *existence of urea* in large quantity in diabetic urine. Such urine is almost always deficient in lithic acid and was long thought to lack urea also. But the urea exists, its presence being masked by the sugar, and it cannot be discovered by being made to combine with nitric acid, the ordinary mode of demonstrating its presence, without peculiar management. Dr. Henry, indeed, by distilling the residue of a given measure of urine at a temperature a little above the heat of boiling water, when urea is decomposed, had ascertained from the quantity of carbonate of ammonia evolved that the characteristic element of urine must be present in considerable proportion at least; but Mr. Kane, by treating the residue of a diabetic urine with dilute nitric acid in a flask, and plunging this into a freezing mixture, obtained fully the average quantity of nitrate of urea. Mr. M'Gregor, again, after getting rid of the sugar by

means of fermentation, evaporating slowly, and treating the extract obtained with anhydrous alcohol, &c. found he was able to procure the urea in a crystalline mass and uncombined, In this way Mr. M'Gregor demonstrated that one diabetic patient was passing 1013 grains of urea daily; that a second was voiding 945 grains, a third 810 grains, and a fourth 512.5 grains, the quantity discharged by a person in health amounting to from 362 to 423.5 grains. None of these patients had undergone any treatment, and the specific gravity of the urine in each in succession was 1.040, 1.045, 1.034, 1.050, the quantities of urine discharged being, in the same order, 38½ lbs., 30lbs., 40lbs. and 25lbs.

Relative Quantities of the Ingesta and Egesta in Diabetes.—It has been a subject of remark, and sometimes of astonishment, that the quantity of urine excreted in diabetes, exceeds that of the fluid drunk. But, as Dr. Willis observes, the same circumstance obtains in health. M. Chossant found in the course of his experiments, that during the depth of winter, the quantity of urea excreted by persons in health exceeded their drink in the proportion of 1.5 to 1. Between midwinter and the vernal equinox, the urine fell short of the drink in the ratio of .94 to 1. In the summer months the difference was still greater, the urine falling short of the drink in the ratio of .89 to 1. Even the most solid food consumed by man contains a very large proportion of water; and by whatever amount the urine discharged surpasses the drink imbibed, the excess is in all probability commonly derived from this source. The quantity of dry feces voided by man in the course of the day is extremely small, not amounting to more than from one to two ounces, the individual consuming regularly from twenty to forty ounces of food styled solid in the same time. We also observe sheep, goats, hares, and other herbivorous animals, eating many pounds of succulent food in the course of the day, and discharging only a few ounces, or even a few drams of very hard dry excrement; but they void large quantities of urine, even when they do not drink at all. It is interesting to observe, that the feces in melituria have commonly the dryness and hardness of those of the rodent and ruminating animals mentioned. Dr. Bardsley's inquiries, indeed, may be regarded as militating against these views. With every attention to the weight and measurement of the ingesta, he found that the mass of matter excreted surpassed that taken in. If this were so, the additional fluid was in all likelihood derived from the atmosphere by the mucous membrane of the bronchi; this having been shown in some experiments of Professor Mayer particularly, to have the power of rapidly absorbing fluids placed in contact with it. But, in cases of diabetes, it is difficult to get at the truth in reference to the quantity of the ingesta, patients usually eating and drinking more than the medical attendant is aware of.

Impotence in a Case of Recovery from Diabetes.—Dr. Willis alludes to the well-known circumstance, that the sexual appetite generally disappears at a rather early stage of the disorder; and he adds that, in one of the few cases of genuine recovery that he is acquainted with, the only function that remained in abeyance was the sexual,

The Proximate Cause of Diabetes.—Dr. Willis sketches successively the

opinions or the theories that have, at various times, been formed upon this subject. He is naturally arrested by the experiments and the paper of Mr. M'Gregor, who has established the existence of sugar in the serum of diabetic blood—and shewn its formation in the stomach, the saliva, and the fæces. It is on these observations in particular, that Dr. Willis leans, in announcing the proximate cause of the disease:

"Derangement of the digestive functions is here unquestionably the head and front of the offence. This derangement too is of a very peculiar kind: the stomach has a disposition to fabricate sugar to a preternatural extent out of the food, particularly the vegetable food, taken into it; for the disease is functional in every part, and is actually *disease* only because the *degree* of a natural process is surpassed—the healthy stomach generates sugar to a limited extent; the stomach of the melituric individual generates sugar in excess. The sugar produced in health is without doubt decomposed in the after-stages of digestion; it does not appear in any of the fluids of the body, nor in any of the secretions save milk, of which it is an element, nor in the feces; in the melituric state the sugar engendered is not decomposed; it enters the circulation. To explain all the rest of the disease,—the fever, and wasting, and excessive secretion of urine, &c., becomes easy after this: there is a substance mingled with the blood which is foreign to its constitution, and which consequently poisons life in its fountain head. The derangement of the kidneys is purely secondary, and is consequent upon its efforts as grand purifier of the system along with the lung, to free the circulating fluid of the cause of all the evil—the sugar. The morbid changes discovered in the kidneys, after death from melituria, have even generally been extremely trifling, they have mostly been such as indicated simple increase of functional activity; and this, in fact, is all that the kidneys can be rightfully charged with,—if their efforts are not much rather beneficent than prejudicial; for my own persuasion is, that without energetic action on their part, the disease would prove far more rapidly fatal than it does." 218.

The precise morbid state of the digestive apparatus is obliquely glanced at, and furtively dispatched by Dr. Willis. Pathological anatomy has not helped us, the changes that are found being too inconstant and often too inconsiderable to form a stable basis for the erection of a hypothesis.

Hints for Treatment.—We shall merely pick out such as are either new, or are more forcibly or igeniously put than usual. What is pretty well known we shall pass over.

a. Dr. Willis remarks:—"*Could we discover any means of preventing the stomach from forming sugar, we should, I believe, succeed in curing the disease.* To this end the efforts of practitioners ought in future, as I imagine, to be directed."

b. Dr. Willis reprobates large doses of opium. He conceives that one or two grains of opium in melituria, as in other diseases where the medicine is decidedly indicated, are in general the proper dose: if we can do with half a grain, so much the better. It is very commonly advantageous to aid the natural tendency of opium to the skin by giving it a combination with ipecacuanha, or still better with minute doses of the tartrate of antimony. This latter, he fancies, allays the craving at the stomach.

c. He naturally lauds the sudatorium. It happens, he says, very rarely indeed that a melituric patient is found who resists this powerful agent, which cause large drops of sweat to start upon the skin where no trace

of moisture had been seen for months. The sudatorium has even been held as a complete prophylactic of the disease we are discussing: and it is curious to learn that in Russia, as Dr. Lefevre informs us, where every peasant and artizan makes use of the sudatorium, the disease is unknown. He had himself looked in vain through the records of the principal civil and military hospitals of the Russian empire, for the mention of a single case; and Sir James Wylie had not met with it once among upwards of two millions of soldiers who had passed under his notice as general military inspector. But the sudatorium, though seemingly useful, ultimately failed in two cases of Dr. Watson's. Still it is a valuable adjunct to our remedies.

d. He seems to anticipate much from magnesia. It has undoubtedly, he observes, been several times employed with more of what, in opposition to the prevailing views of the day, might be termed a *specific* effect, than any other medicine. It is one of the very few articles too that has done good in the hands of different practitioners. Hufeland, among others, speaks highly of its powers. Mr. Benjamin Phillips lately prescribed magnesia upon two occasions to the same individual labouring under melituria in an early stage, and in each instance with success: the sugar disappeared from the urine, the thirst and all the other symptoms of the disease were immediately relieved and speedily vanished.

Plan of making nourishment less nutritious.—Dr. Willis, observing that Nature has mixed the food of all but the pure carnivora, with a large proportion of insoluble and innutritious matter, would act on this hint in a case of diabetes. He would supply a moderate quantity of nutritious animal food,—yolk and white of egg, beef and mutton finely chopped, soft curd, &c., mixed with a considerable proportion of woody fibre and indigestible matter, such as bran freed from all amylaceous particles, by boiling in a large quantity of water, the woody part of the potato separated from its starch by rasping and washing, and the like.

Dr. B. G. Babington has observed that green vegetables—the oleracea, such as spinach, cabbage, celery, &c., may be taken without increasing the saccharine qualities of the urine. These vegetables include next to no amylaceous particles; they, however, include a considerable proportion of gummy extractive matter, upon which their nutritive qualities entirely depend. If it be found, says Dr. W. that these are not converted into sugar in the stomach, the discovery would be important. We have our doubts.

Proposal to exclude Insalivation.—Dr. Willis, in his laudable anxiety to seize on any remedy for so desperate a disorder, as drowning men are known to catch at straws, proposes to exclude, so far as may be, the action of saliva from the process of digestion. He does this, because the experiments of Leuchs, Schwann, and Mueller have shewn the power possessed by saliva of converting starch into sugar.

"Would any thing be gained by administering food to patients affected with melituria, without suffering it to undergo the ordinary preliminary mastication, thereby preventing it from being mingled with saliva? Would food that has not been mixed with saliva, thrive with man for any length of time? I believe it would." 241.

"Could vegetable food be administered to melituric patients without prejudice through an œsophagus tube? If the agent in the conversion of fecula into sugar be saliva, as seems certain from the experiments of the distinguished physiologists referred to, we should expect to avoid this conversion by preventing any saliva from reaching the stomach. Chemistry, which has served medicine so efficiently and on so many occasions, ought surely to come to her aid in this instance, and show as well what will *prevent* as what will *cause* the formation of sugar from starch." 142.

We fear, in the first place, that the attempt to exclude saliva from the stomach during digestion would prove in the end abortive; and, in the second place, that the formation of sugar hinges on something deeper than any such remedy, were it practicable, would affect. Still, the proposition having an experimental basis, may perhaps, deserve a trial.

Are Diabetic Patients Intellectual?—It has been remarked, says Dr. Willis, that those who suffer from diabetes are generally individuals of superior intelligence. Hufeland, writing after he had passed something like sixty years in the exercise of his profession, says he never met with a *stupid* man affected with diabetes. From what we have seen of diabetes, it has appeared to us that individuals affected with it have been much like the ordinary run of mortals, some clever and some obtuse. Of this we are certain, that one of the *stupidest* of clod-hoppers died of it under our observation. Hufeland's, we should conceive to be one of those whimsical Continental crochets, that make plain folks on this side of the water stare.

The eighth Chapter of Dr. Willis's interesting work is on the

FORMATION AND GROWTH OF URINARY CALCULI.

As most of what Dr. Willis says *must* be familiar, we shall continue to adopt the plan of selecting only what is particularly striking, or novel.

Mode of giving Alkalies for Lithic Acid Gravel.—Dr. Willis, after considering the caustic alkalies as nauseous, if not acrimonious (a censure which is perhaps too harsh and indiscriminating), and approving, of course, of the bicarbonates of potash and soda, observes that it is of great importance to exhibit them in a state of very plentiful dilution. Equal quantities, he says, of some of the natural mineral waters that actually contain but one or less than one part of bicarbonate of soda in 200 of the fluid, are more potent in rendering the urine alkaline than a solution of the same salt in the ratio of one to fifty or sixty. A dram, or at most two drams of the salt in from a pint and a half to three pints of fluid, is the proper proportion; and this quantity may be taken at intervals in the course of the day, with the effect of powerfully increasing the activity of the kidneys, speedily putting an end to the acidulous state of the urine, and either washing out lithic grit and concretions of late formation from the pelvis of the kidney, from the ureter or bladder, or disintegrating and dissolving them, wherever they chance to be arrested. Should the urine not become neutral in the course of a day, the quantity of the alkali may be increased. That the soda may be thus taken for a great length of time with impunity, several remarkable cases

prove, though we think that this should not lead to the indiscriminate exhibition and abuse of a valuable medicine.

"The only improvement," he continues, "I can suggest on the mode of taking the bicarbonate of soda above recommended, were, in case circumstances could be made to bend to such a plan, to advise the sufferer from gravel to take it at the well-head in one or other of the natural mineral waters, in which it is contained. The mineral waters of Vichy in particular, which hold in solution about one part of bicarbonate of soda in 200 of the menstruum, quickly render the urine of the drinker neutral or alkaline, and afford great relief to the unhappy sufferer with gravel and urinary calculus. The waters of Selters, Obersalzbrunn,* Aix la Chapelle, Pouges, Spa, Carlsbad, &c., also contain carbonate of soda in variable and smaller quantities, and have long obtained and deserved much celebrity for their virtues in certain forms of gravelly complaints. One of the pleasantest sparkling waters I met with in a foot ramble through Germany, now many years ago, was in the immediate vicinity of Carlsbad." 259.

Dr. Willis supposes that under diluents with the alkaline carbonates a lithic acid calculus descending from the kidney to the bladder, may be actually disintegrated and dissolved. This certainly may be the case, but it is evidently difficult of proof. Dr. W. relates two cases where the symptoms of a calculus descending the ureter were not followed by the expulsion of any. But as the patients did not die, the evidence is of course defective, and although such cases may render the fact probable, they do not, and they cannot demonstrate it.

Dr. Willis dwells very forcibly and very properly, on the necessity of not being put off our guard by the lull of symptoms which follows the entrance of the stone into the bladder. The calm, he says most truly, will certainly impose upon the patient, uninformed as he must almost necessarily be in regard to the nature, progress, and tendency of his disease; but it ought not to lull his medical adviser into a security that is most dangerously indulged in for a day. The fact is, that this is just the time when the medical man *should* be on the alert. He has probably been consulted for the sharp symptoms of the passage of the calculus from the kidney—he will soon cease to be consulted, by reason of the temporary calm—when he is again consulted, the calculus will propably have attained a size that makes the case of a widely different complexion.

Alternating Deposition of Lithic Acid and Phosphatic Calculi.—Dr. Willis observes:—

"It has generally been admitted as a law, on the high authority of Dr. Prout, that the phosphatic diathesis once established, that is the triple phosphate of ammonia and magnesia and the phosphate of lime, being once deposited on a calculus, matter of another kind is never deposited upon it afterwards. I imagine that this law is not quite so general. If ordinary physical characters may be trusted at all. I have seen calculi in which laminæ of the phosphates were en-

* "See an interesting case of nephritic calculus brought away, and a long period of suffering from gravelly complaints completely removed by the use of this water, in the person of Dr. Lebenheim, of Trebnitz, related by himself, in vol. xlix. of Rust's Magazine. He voided as many as twenty calculi of different sizes at once. The pelvis of one if not of both kidneys must have been full of concretions."

veloped by others of lithic acid or the lithates, and even of the oxalate of lime. These instances, however, were in public or private collections, and so circumstanced that I had no opportunity of putting the matter to the test of experiment by an analysis. Among authors on the subject, indeed, I find many examples in entire contradiction to such a law." 293.

And he quotes one case from Marcet, and three from Brugnatelli, which, so far, bear him out.

Here, we believe, we must pause. In our next number we shall resume, and conclude, for a season, the subject of Diseases of the Urinary Organs. To M. Rayer we shall turn for a history of the acute and chronic inflammation of the kidney, complete, and excellent, and instructive in the very highest degree. It is hardly necessary upon our parts to press our readers very urgently to study these complaints.

THE TRANSACTIONS OF THE PROVINCIAL MEDICAL, AND SURGICAL ASSOCIATION. Vol. VII. London. Churchhill, 1839.

ANOTHER volume of the Provincial Society's Transactions is before us. It furnishes ample evidence of the zeal, the unanimity, the information, and the talent of a large body of our provincial brethren. Long may they combine for these worthy ends—the promotion of union among themselves, and the diffusion of science in the empire.

The contents of the volume are the following:—

1. Proceedings of the Association at Bath. 2. The Retrospective Address, delivered at the Sixth Anniversary Meeting of the Provincial Medical and Surgical Association, held at Bath, July 18th, and 19th, 1838.—By Jonas Malden, M. D. 3. Medical Topography of Copenhagen. By C. Otto, M. D. 4. On the Medical Topography, Statistics, Climatology, and Natural History of Swansea, Glamorganshire.—By J. W. G. Gutch, Esq. M.R.C.S 5. On the Medical Topography of Exeter, and the Neighhourhood, being a Sketch of the Geology, Climate, Natural Productions, and Statistics of that District.—By Thomas Shapter, M. D. 6. On a Peculiar Affection of the Uvula.—By Edward Thompson, Esq. 7. A Report on Midwifery in Private Practice, with Observations on the Use of Ergot, &c. —By Caleb Burrell Rose, Esq. 8. Cases of Hernia Cerebri, with Remarks. —By C. Mallett, Esq. 9. A case of Intus-Susceptio, with Separation of five inches of Intestine, followed by complete Recovery.—By John Fox, Esq. 10. A case of Molluscum.—By C. Fowler. Esq. 11. On the Physiology of the Brain as the Organ of the Mind.—By Charles Cowan, M. D. E. and P. 12. Remarks on the Use of the Fucus Esculentus as a Bougie. —By Thomas J. Aitkin, M. D. 13. Observations on the Physiology and Function of the Liver.—By James Mc Cabe, M. D. 14. A Report of the Out-Patients attended by F. Ryland, Esq., at the Birmingham Town Infirmary, between the 25th December, 1836, and the 25th December, 1837. 15. A Report of the Cases of Sickness that occurred at the Asylum for the Children of the Poor of the Parish of Birmingham, between June the 30th

and December 31st, 1837.—By F. Ryland, Esq. 16. Biographical Memoir of the late Henry Park, Esq. 17. Biographical Memoir of the late Nathan Drake, M.D.

Of many of these papers we can only speak in terms of merited praise. Need we say, that Dr. Boisragon delivered an eloquent address at Bath—that Dr. Malden took an able retrospect of medical matters and medical science—that the topographical articles display the indefatigable industry, and the careful judgment of their authors? If we do say as much, we but respond to the opinion, and echo the voice of every member of the Association. But excellent as these papers are, we are precluded, by the nature of this Journal, from doing more than notice them in terms of approbation.

The "Essays and Cases" are more adapted for our purpose, and we shall cast a glance at most of them.

I. On a peculiar Affection of the Uvula. By Edward Thompson, Esq. Surgeon to the Whitehaven Infirmary.

Mr. Thompson is of opinion, that when, in simple inflammation of the throat, there is a sudden fatal termination, unpreceded by any dangerous symptom, enlarged uvula in all cases will be found to be the cause of death.

The affection, which Mr. Thompson intends to describe, consists in the elongation of the mucous coat of the uvula, by the gradual effusion of lymph, to such an extent as to endanger life, by its being inspired into the glottis, theyby causing spasm, and putting an immediate stop to respiration. The extent to which the elongation takes place occasionally is remarkable; he has seen it above two inches in length. The fluid contained in the expansion of the mucous coat is of a light amber colour, and, along with the membrane, so pellucid that the handle of a tea-spoon can readily be seen through it when placed behind the appendage. The body of the uvula appears, on examination, to be enlarged to a slight degree, partaking of the inflammation which extends across the palatine arch. He has not seen the tonsils enlarged.

The symptoms assigned to this alteration are the following:—

"The symptoms are those of simple cynanche, in the first instance; but afterwards a huskiness of voice, with an occasional brief loss of it, are superadded. These do not long continue in the same state, for as the disease advances, which, from what I have witnessed, it does very rapidly, another and more awful symptom arises—it is that of a distressful feeling of suffocation, perhaps slight at first, but which increases, and cannot, as at the commencement, be relieved by swallowing fluid. A superficial examination shows the throat inflamed, and, with the exception of the uvula, not much swelled. The latter may be seen slightly enlarged, but apparently of its usual length, which the hasty enquirer, judging by the red termination of it, may be easily deceived in. If death does not take place before he has made himself acquainted with the nature of the complaint, he may think the larynx is inflamed, or, which is more probable, œdema of the glottis to be present. Of the former, an examination of the symptoms will enable him to judge; of the latter, the finger will inform him of its non-existence. The frequent act of swallowing, carrying back as it does the flexible appendage into the œsophagus, is the cause of deception

in this interesting yet dangerous affection, and is one reason of the great freedom, for a time together, from any distressing symptom, but which becomes suddenly changed by a cough and rapid inspiration. The position by such act is immediately altered, and the appendage may be instantly puked as it were into the larynx. The consequences of such a change may be at once imagined. The patient whom we had left with every assurance of a rapid recovery, may be instantly destroyed, or placed in a situation of the greatest hazard." 309.

Unfortunately Mr. Thompson has no case and dissection to bring forward in proof of the preceding statements. This is to be regretted. It is equally improper and impossible to attach more importance to the whole description than a clever suggestion may claim. We own that, for several reasons, we are not quite convinced.

Mr. Thompson relates two cases in illustration of his statements. We shall notice one.

Case. On the 24th November, 1834, Mr. T. visited Mr. H. He had complained of soreness in the throat during the night, which had rapidly got worse, and was accompanied occasionally with a slight feeling of suffocation, but this was quickly relieved by drinking water.

"On examining (I must acknowledge but imperfectly) the fauces, they were found inflamed, and the tonsils slightly swelled; the uvula was broader and apparently longer than natural, and highly injected. I thought I discovered its termination. He was directed a blister to the neck, and a gargle to be frequently used along with a purgative medicine, and told he would soon recover. I had not left the house half an hour before I was again hastily summoned, he having been attacked with such difficulty of respiration, and symptoms of suffocation, as to alarm the house. On arriving I found him as pale as a corpse, but then perfectly relieved in his breathing. He described his sensations during the paroxysm to have been most appalling, and that he was only saved from instant death by his wife beating him on the back, which excited cough, by which he was relieved immediately. Having seen a case somewhat similar, I was at once satisfied of the nature of the affection, and immediately blamed myself for not having more particularly examined the uvula. By passing down the tongue I could see the commencement of the appendage, and on desiring him to cough, it was raised up, and brought forward by the spoon. The extended membrane reached to the front teeth, which enabled me to seize it and cut it off with a lancet. He was instantly relieved and suffered no more. The capsula containing the fluid which escaped into the mouth on the lancet being used, was formed of an extension of the mucous coat, extremely thin, and very diaphanous." 314.

We would direct our readers' attention to this case, as well as to the remarks of Mr. Thompson introducing it.

II. A REPORT ON MIDWIFERY IN PRIVATE PRACTICE, WITH OBSERVATIONS ON THE USE OF ERGOT, &c. By CALEB BURRELL ROSE, Esq. Swaffham, Norfolk.

This Report occupies twenty-nine pages, and a very interesting, indeed instructive, one it is. We trust that others will imitate the excellent example set them by the gentleman before us, and that we shall have reports from private as well as from hospital practice. We cannot pretend to ana-

lyse Mr. Rose's paper, but must satisfy ourselves with picking out scuh parts as are most important.

Dilatation of the Os Uteri in Lingering Labor.—We are almost afraid to cite the sentiments of Mr. Rose on this head, militating as they do against those of that most pugnacious of men, Dr. Hamilton. He has inflicted on us a pamphlet already, and we could not well survive a repetition of the dose. But we will venture.

Mr. Rose alludes to Dr. Hamiltons advice, to endeavor to abridge the process of labor, by expediting its first stage with digital manipulation, not suffering it to extend beyond "twelve or fourteen hours, whenever the uterine contractions continue to be regular and progressive."

"Believing," he says, "the advice to be pregnant with mischief, if not positively dangerous, and having found that unfavorable consequences are to be attributed less to the *duration* of the first stage of labor, than to the *means* by which the dilatation is effected, I think it my duty to raise my humble voice in reprehension of the practice. Who is there amongst us that has not witnessed the ill consequences of officious meddling in the parturient process, manifested by the heat, dryness, and swelling of the vagina and os externum? In and *with* the doctor's *hands*, I grant, that such results would not be met with; but can we calculate upon such an immunity where the anxious and inexperienced youth has the managing hand? Do we not always desire that the opening of the mouth of the womb should be effected by the soft membranes distended by and protruded with the waters, rather than by the hard and cumbrous head? And why is it our desire? because experience has taught us that when the membranes burst early, the labor is almost invariably more painful and tedious, and that *painful* interference may induce unmanageable effects. Here let me state a fact bearing strongly on this question; it is this, that in three severe cases out of four of hysteritis in my practice, the membranes had ruptured at the commencement of labor, and consequently the os uteri had been dilated by the head of the child. I may mention in this place also, that the only case of puerperal peritonitis that occurred among my patients, was preceded by the like untoward circumstance. These cases have contributed greatly to impress me with the belief in the pernicious tendency of the practice of manual dilatation." 321.

The Ergot.—This was used in ten cases, and, upon the whole, advantageously; in four instances it failed of its purpose; in two of the four it was given in the form of infusion, and, perhaps, was old and inert. Mr. Rose, on the whole, prefers Bass's Essence, as it sits easier on the stomach. The time required to accomplish its purpose, in those cases in which it was effective, has been from half an hour to an hour and a half.

Mr. Rose alludes to the opinions of Mr. Chavasse, that the ergot "is calculated, when given without care and discrimination, not only to defeat the purpose for which it was administered, but to destroy the vitality of the child in utero; and that at other times, even when given under the guidance of judgment and discretion, it will occasion hour-glass contraction and retention of the placenta."

Mr. Rose thinks that the still-births seen after the exhibition of the ergot are probably the consequence of the nature of the uterine contractions excited by it—contractions almost continuous and unremitting, and most unlike the alternate action and repose of the uterus as it acts spontaneously

Under the influence of the ergot, the fœtal head is subject to a persisting force, instead of an alternating one, and driven like a missile, though with less velocity, through the unyielding pelvis, instead of advancing step by step, from the natural throes of labor; consequently, the brain is exposed to a degree of pressure incompatible with life.

As a consequence of this view, Mr. Rose conceives that we ought not to employ the ergot, till the hazard of long continued pressure is passed by—in short, until the os uteri is fully dilated, and the head of the child occupies the *cavity* of the pelvis.

"In my own practice," he adds, "I have almost invariably employed the ergot as a mild substitute for the short forceps, and have administered it accordingly. I will give a case or two in illustration;—Mrs. B., thirty-two years of age, first pregnancy, membranes burst on a Saturday evening, trifling and irregular pains came on during that night and Sunday, in the evening pains more severe ensued at irregular intervals. I gave an anodyne. Monday morning I examined and found the os uteri but little opened, and the head presenting; at night the os uteri was not larger than a shilling. I gave an anodyne. Tuesday morning, os uteri the same. I bled her to sixteen ounces. In the evening, pains more regular, os uteri as large as a half crown. I administered a domestic enema. Wednesday, two o'clock, A. M., os uteri fully dilated, and head entering the pelvis, pains inefficient, external parts still very rigid. I fomented them with warm water, and lubricated them internally with an abundance of lard. At eight o'clock, A. M., an ear could be felt under the pubis, and as the pains were declining, I gave half a drachm of ergot infused in two ounces of boiling water, repeating the dose every quarter of an hour; after the second the action of the uterus was aroused, the third dose increased effectively the pains, and a living child was born in two hours; the placenta was expelled soon after." 326.

We leave these views to our obstetric brethren.

Convulsions.—In Mr. Rose's own practice, two cases exhibiting the premonitory symptoms of *convulsions* occurred. In both instances the unpleasant symptoms were completely removed by one large bleeding; they were first pregnancies. Mr. R. has been called into consultation in four instances within the last seven years. The first case turned out badly, and as Mr. Rose admits that it was injudiciously managed, we need say no more about it. In the second case the patient was bled, first to twenty, then to sixteen ounces, and the forceps were used; she recovered. The third case was fatal, Mr. R. being only called in when the patient was evidently sinking. The fourth case proved fortunate. The patient was bled to thirty ounces, with but little benefit. Then, says our author, "finding on examination the lower extremity of a child in the vagina, we proceeded to delivery, which was soon accomplished. Upon the birth of the child, we ascertained there was a second. The woman was perfectly unconscious of what was going on; as the uterine action was profitable, and the presentation natural, we left the birth of the second child to nature, which she soon effected. The placentæ were readily yet not precipitately removed, and we were congratulating ourselves on having thus far proceeded safely, when a terrific paroxysm arose, and continued some seconds. Having protected the brain by the early detraction of blood, I advised fifty drops of Batley's Sedative Solution; it was presently given; mustard cataplasms were also applied to

the feet. The patient soon settled into a quiet sleep, had no return of the convulsions, and, in short, did remarkably well."

Hæmorrhage.—"In the six hundred cases reported, *twenty* were complicated with hæmorrhage; of these, in *nine* the hæmorrhage occurred after the placenta was expelled, in *four* in the third stage of labour, and in *seven* before the birth of the child, of which two were *unavoidable* and five *accidental*. I shall merely observe on the thirteen cases comprising the first two classes of hæmorrhages, that the usual means for its suppression were employed with success; in two of these cases the placenta adhered partially, requiring the introduction of the hand to effect its separation; there was also a case of disruption, in which the hæmorrhage was excessive, requiring brandy in liberal doses; I also administered the ergot with decidedly good effect; indeed, latterly, I have invariably given the ergot in hæmorrhages occurring in the third stage of labour, but I prefer removing the placenta previously to administering it." 336.

We conclude our notice of this interesting Report, and turn to—

III. CASES OF HERNIA CEREBRI, WITH REMARKS. By G. MALLET, Esq Bolton.

Mr. Mallet relates five cases, and very interesting ones they are. Four of them were instances of hernia cerebri, all of compound fracture of the cranium. Every one did well—rare fortune or merit.

Mr. Mallet observes:—

"It will be seen that four of the five cases above-mentioned were affected with hernia cerebri, and that in each of these four cases a foreign body was found acting as a constant source of irritation, and knowing how generally the occurrence of irritating bodies found in other parts of the system is followed by excrescences, partaking more or less of the nature of the part from which they proceed, I think it extremely probable that without some such irritating cause, we should not have hernia cerebri, which opinion is much strengthened by the other case, in which the complaint did not come on, as no broken and loose portion of bone, or any other extraneous particles, were found at any period of the progress of the case after the first dressing." 350.

Mr. M., at the same time, protests against being understood to affirm that hernia cerebri cannot occur without the presence of an irritating body—a necessary caution, for few would be got to accede to such a bold hypothesis. Yet he believes, and would direct attention to the probability of the circumstance, that there is a connexion between the two. He therefore advises that we cannot be too careful in removing, not only all the parts perfectly loose, but also all the points or spiculæ of bone that may still be adherent to the cranium, if they are likely to press upon the brain: and he would also recommend that the finger be gently pressed into the wound, so as to examine into the state of the interior table of the skull, and if any portions of it appear so cracked or broken, that it is probable they will exfoliate and be thrown off, if not removed, it is better that they should be taken away, even if some slight violence be necessary to extract them.

We leave this advice to our surgical readers. It does appear to sin against the ideas which at present prevail. We say *ideas*, for how uncertain and vague are our opinions on the treatment of severe injuries of the cranium!

The following are Mr. Mallett's sentiments on the best method of managing hernia cerebri:—

"In every case when the hernia first commenced, moderate pressure and various topical applications were used, but in two of the cases they were found totally inefficient to restrain the progress of the complaint; and in the case of Howcroft it increased to the enormous magnitude mentioned. It was then removed, and the result is a satisfactory proof that, in cases of necessity, the mass, no matter how large, may be at once cut off with safety and advantage. After the operation, let the wound be carefully examined, to be certain that there is no irritating cause remaining likely to bring on its reproduction. If, after this there should be a disposition to its reproduction, moderate pressure and the daily application of the nitric acid, reduced to the following strength, will be the best applications:—℞. *Acidi Nitrici* ℥ℓ. xl., *Aquæ fontanæ* f. ʒij. *Fiat Lotio.* I am unable to assign any particular reason why the above application should be more effective than any other, but the result after each application decidedly proved it to be so." 351.

Mr. Mallett gives a dissection of a large hernia cerebri sliced off by him, which will be perused with instruction. The appearance, he states, of the cut part upon the head was that of medullary matter surrounded by its cineritious or cortical envelope, and of course the corresponding section upon the tumor was similar. The exterior of the tumor was formed by a very thin layer of granulations of a brownish colour. A vertical section being made through the mass, it exhibited throughout, immediately under the above-mentioned thin granular covering, a stratum of the cineritious matter, nearly half an inch in thickness, where it was cut from the head, and it became gradually attenuated as it receded from that part, till at the most distant or highest point it was so thin as to be scarcely perceptible. The remainder of the tumor so resembled the medullary structure of the brain, that no eye could detect the one from the other; the only difference being, that it was not quite so firm in the structure as the brain usually is. In the centre, a cavity was laid open by the section, containing about an ounce of a limpid serum; the cavity was lined throughout by a beautiful transparent and glistening membrane, and if the shape had not been different, it might have been mistaken for one of the ventricles of the brain. He therefore regards the hernia, not simply as consisting of fungous granulations, nor yet of an elevation of the brain previously contained within the skull, but as a new formation similar to brain.

IV. A Case of Intus-susceptio, with separation of Five Inches of Intestine followed by complete recovery. By John Fox, Esq. Surgeon, Cerne Abbas.

H. Diment, aged 16, ate some nuts on the 8th September, felt unwell on the 9th, and was seen by Mr. Fox on the 10th. He had pain about the umbilicus, and had had no motion for twenty-four hours. It is unnecessary for us to particularise symptoms or treatment, suffice to say that the case assumed all the characters of intus-susceptio, and resisted all the remedies directed against that disease by Mr. Fox. But on the 16th, it occurred to Mr. F. to give a trial to inflation. He immediately procured a bladder, and secured one end of it to the nozzle of a pair of bellows, and the other

end to a common enema pipe, and having introduced the pipe its full length into the rectum, the bellows were set in motion by his pupil, and inflation forcibly but slowly persevered in for many minutes, until the poor boy complained of a disposition to "break wind," and said that his "belly was very tight." The convolutions of the intestines could be seen and felt distinctly, the arch of the colon most so; the tube was now withdrawn, and to Mr. F,'s great surprise and gratification, in about twenty minutes he said he felt as if he should soon have a stool; he was therefore lifted and supported upon the bedpan, when he passed off wind in large quantities, which in a few minutes was followed by a very copious and liquid evacuation, containing, however, a few hard lumps. He continued, after this, to pass flatus and stools, and to improve, until the 22nd, when he was decidedly worse. Mr. Fox left him, supposing the case hopeless. On his arrival next morning, he was agreeably disappointed. He found that:—

"My patient's bowels had been very copiously moved, that he had afterwards slept for nearly two hours, and that he expressed himself as feeling in every respect more comfortable; at the same time, however, his nurse told me she 'supposed he would not last many days longer, as a large piece of his bowels had come away with one of his stools.' I immediately examined the stool, removed the substance alluded to, and having carefully washed it, I found that the woman's suspicions were correct, and that it was indeed a portion of one of the intestines, with some of the mesentary still adhering." 362.

The lad recovered perfectly. Mr. Fox naturally regrets that he did not resort to inflation earlier.

V. A CASE OF MOLLUSCUM. By C. FOWLER, Esq., Surgeon to the Cheltenham Dispensary and Casualty Hospital.

The subject of this well-marked case, W. Jones, aged 68, is a day labourer. He stated himself to have been one of a family of nineteen,—never to have contracted any syphilitic complaint, or suffered from any kind of disease, hereditary or otherwise.

"This singular affection, he states, first made its appearance about twenty or thirty years since, commencing in small accuminated elevations upon the waist and wrists, and gradually increasing to their present magnitude. The large and pendulous tumor hanging from the crest of the left ilium, and which it was customary with him to place in his breeches pocket for support whilst at work, was the first that made its appearance; this, and another large one between the arm and thorax of the same side, were the only ones which, from occasional subjection to pressure, gave him any degree of uneasiness or pain. These tumors were thickly disseminated over the whole cutaneous surface, from the crown of the head to the sole of the foot, and varied in size from the smallest visible elevation of the skin, to the one seen on the left waist, which weighed about three quarters of a pound; some of them were attached by broad bases and others by stems of various degrees of length and magnitude. The tumors upon the back and waist were the most thickly set of any, and looked like clusters of reddish grapes; those upon the abdomen and hips were longer and more irregular in form. The skin covering them was perfectly sound, but possessing more of a rose tint than the surrounding integument; in those, however, that had been subjected to pressure upon their summits, the colour had changed to a

dirty blueish grey, the skin likewise was very much attenuated, and easily raised from, and rolled over the subjacent tumors; forcible compression with the fingers seemed to produce very little uneasiness in them, and the sensation to the touch, when handled, very nearly resembled that of fatty tumors, only somewhat harder in consistence, and many of them, particularly the larger ones, were distinctly lobulated.

Two of these tumors, of moderate size, situated upon the abdomen, were removed for the purpose of analysing their structure; and on making a section of them, no very great difference was observable in them from the appearance of fatty tumors generally; there was the same semi-transparent yellowish tinge pervading the whole mass as in the latter, but the consistence was denser, the cut surface smoother and firmer, and the substance more uniform throughout. The skin was easily reflected from them in consequence of its loose connection, and a fine cellular membrane surrounded the whole, and dipped into the interstices of those that were lobulated. The excision of these tumors was accompanied with the loss of but a few drops of blood, which were evidently supplied by the surrounding integuments, for no nutrient vessel could be discovered entering at their base." 366.

One, and one only growth, on the crown of the head, contained atheromatous matter.

Mister Jones is making a tour through the great towns, to exhibit himself to the faculty. He is accompanied by an eminent professional authority, as showman—the hospital errand boy.

VI. THE FUCUS ESCULENTUS, AS A RECTUM BOUGIE, By THOMAS J. AITKIN, M.D, Poole, Dorsetshire.

Dr. Aitkin relates a case for the purpose of introducing the fucus esculentus (tangle) found abundantly on several of our rocky coasts, as an excellent rectum bougie. To mention the recommendation is enough. Dr. A. assures us that the fucul answers well.

There are several excellent memoirs, biographical and physiological, which we dismiss with reluctance, as not adapted for our pages. The volume before us is a good one.

A Letter to the Secretary at War on the Sickness and Mortality of the West Indies, &c. &c. By Sir *A. Halliday*, M. D.

This is chiefly a review of Capt. Tulloch's celebrated statistical report, which we have noticed in a preceding number, and to the merits of which Sir A. bears ample testimony. But introductory to his subject, our author takes occasion to deplore the strange fact, that no medical officer should have been deemed worthy or capable of performing the duty which was thus delegated to a captain in the army destitute of professional knowledge!!

This remarkable and astounding transaction has "tended much to lower the department, already sufficiently low in the estimation of the public, and must prove most disheartening to every member of that department, to find a military subaltern earning promotion by the performance of a task that most especially belonged to the medical officer."

The picture which Sir A. draws of the utter non-attention of military towards medical officers, on all points of hygiene, is absolutely distressing, and we could not have believed in the reality of the portrait, had it not been delineated by an Inspector of Hospitals, who must have the best means of judging. There is one consolation that Capt. Tulloch is acknowledged to have performed the task he undertook with great ability; but still a physician qualified in other respects, might have brought to the investigation some qualifications which Captain Tulloch could not be supposed to possess. At the same time it ought to be observed that Mr. H. Marshall, whom we believe to be a medical man, was associated with Captain Tulloch—a circumstance which would appear to have been overlooked by Sir A. in his complaints on the subject in question.

Our author adverts to certain sources of unhealthiness amongst our troops in the West, and which were pointed out by the medical officers on the spot, but contemptuously despised—because they were pointed out by the Doctor!! One of those was the filthy materials of the beddings,—materials which might have been rendered clean and wholesome, as pointed out by Mr. Gunning. Another cause of sickness—or at least of its prolongation—is the employing of raw young medical officers in the West Indies, who are put in charge of troops without experience.

"Every inducement therefore ought to be held out, not only to stimulate young men of superior abilities to volunteer for this service, but to encourage them to remain in the West Indies as long as their health and constitutions can withstand the climate. At present there is nothing to be gained by any exertion, no stimulus whatever to acquire distinction. However diligent and observing a man may be, or however much he may sacrifice his health or his ease to cure the epidemical and endemial diseases of the colony in which he may be stationed, the prospect of any reward, or even of any praise, is now almost hopeless; nay, I have actually known zeal procure censure." 8.

This is a sorry state of things—and one which will be apt to work its own cure anon!

The third source of sickness is the want of chaplains for the moral instruc-

tion of our soldiers, who, instead of attending divine service on Sundays, are strolling about the rum-shops getting drunk.

A fourth cause of sickness and mortality is the paucity of troops—the consequence of which is, that the men are over-worked and over-watched—so that when sickness or punishment occur, the good men have hardly a whole night in bed! There are other and minor causes of illness, but we must pass them over.

Our readers are aware that Capt. Tulloch made the average mortality of our troops in the West Indies to be one in eleven. Our author makes it only one in fifteen—the cases of fever being three-eighths of the whole—and the most important topic in the pamphlet—the remedy for fever—"DR. WARBURG'S FEVER DROPS."

"I am most desirous of calling your Lordship's serious attention to these facts, because, if a remedy can be found which will arrest the progress of so general and so fatal a disease, it becomes, in my humble opinion, a matter of national importance, to make it generally known. And that such a remedy has been discovered, I do most firmly and conscientiously believe—one that is of far more value than any preparation of the *quinquinas*, or what is usually called the Spanish or Jesuits' bark, and one whose powers have now been sufficiently proved to warrant its being ordered by authority in the treatment of fever throughout the whole range of our West India and other Colonies.

It was my good fortune to serve for about twelve months in the Colony of British Guiana, where, as Captain Tulloch's returns show, fever is far more prevalent than in any other British Colony; and where, during what was called the sickly season, from June to November, our hospitals were crowded with every form of the disease. I found that the *sulphate of quinine*, which in Europe and in some of the other colonies had been most efficacious in checking the fever, failed entirely in producing any remission of the symptoms in most of our cases, and when pushed to any extent led to sufferings of an anomalous and distressing kind, that aggravated rather than lessened the violence of the febrile action. In almost every variety of the colonial epidemic, the irritability of the stomach is such as to preclude the exhibition of the bark in substance, or even in the form of a decoction or infusion. Under these circumstances I was induced to have recourse to a remedy which had already become known in the Colony, and was much talked of as 'DR. WARBURG'S FEVER DROPS.'

I got introduced to the Doctor, who had been resident in Demerara for several years, as a civil practitioner; and soon discovered that he was a physician of very superior talents and a man of keen observation; a botanist of some distinction and well acquainted with modern chemistry; and, above all, that he was an enthusiast in science, and often spent months with the Indians in the woods in search of knowledge. The fever drops about which I was anxious, he assured me were prepared from plants, the virtues of which he had ascertained during his sojournings with the native tribes, and he laid before me evidence which proved that the reports I had heard were not exaggerations. I therefore did not hesitate to direct my able assistant, Dr. Gibson, to give the medicine a fair trial in the regimental hospital of the 25th regiment. It was administered in about fifty of our worst cases, and under my own eye with the most perfect success. Dr. Warburg offered to supply us gratuitously with any quantity we might require, but I felt that as I was not allowed to purchase it for the use of the troops, I had no right to encroach upon the liberality of any individual for the benefit of the public, and was therefore compelled to decline his offer. I did not fail, however, to record what I had witnessed in my official Medical Reports, and I accepted of a supply, which was sent to the Director-General, with a re-

quest that trial might be made of its effects in the fevers of Gibraltar and the Mediterranean. I have not heard what the result has been, and possibly it may never have been tried.

There is generally and, I would say, very properly, a great disinclination, on the part of the regular profession, to prescribe remedies of which we know not the composition; but when experience has fully established the character of any drug, or combination of drugs, and it is fairly ascertained that the exhibition of any remedy is unformly followed by the same effects, in the treatment of the same class of disease, we are perfectly warranted in adopting it in our *Materia Medica*. And if it shall be found to surpass all other remedies in the cure of that disease, we would, I conceive, become most criminal if we did not employ it, though the preparation may be kept secret. In this case, however, Dr. Warburg is too liberal and enlightened a physician to have any desire for secrecy. He has been at great trouble and great expense in bringing to perfection these invaluable drops, and in distributing them to all quarters of the globe, that they might be tried, and their success or failure in all cases of fever fairly and candidly reported. And, as it now appears, that whenever they have been tried they have succeeded, thinks he is entitled to some remuneration for the time he has consumed, and the money he has expended in procuring so important a benefit for the whole human race; and that too before he puts others upon an equality with himself in regard to its preparation. I confess, my Lord, there is justice in this: and when your Lordship again refers to the appalling number of cases, 717 in every thousand, of the mean strength of our whole troops! and of the mortality that ensues, I trust you will not feel that I have dwelt too long upon a matter which promises to be of such vital importance in the future treatment of our gallant soldiers, who are subjected to the fearful ravages of West India fever." 23.

Numerous other testimonies from various tropical practitioners have been brought forward by Dr. Warburg, all confirmatory of Sir Andrew's statements. The medicine is now procurable in abundance in London, and it is our intention to try it in some of the various forms of intermittent complaints, short of agues, which are not rare in this country. The intermittent and remittent neuralgia, from the lowest to the highest grade, will be fit subjects for the trial of this remarkable medicine. No one will accuse us of favouring secret nostrums; but if the inventors of remedies will not publish their composition, this is no reason why we should not test their efficacy, when they come from practical and scientific men. Would any man in his senses, or who has any regard for the benefit of his patients, refuse to administer Jame's powder, Battley's sedative liquor, or Ruspini's styptic, because the inventors refused to make known the composition of these remedies? Dr. Warburg has supplied gratuitously immense quantities of the febrifuge to the Profession, and continues to do so, in order that his statements respecting its properties may be farily put to the test. This is, perhaps, as much as could be expected under existing circumstances.

Sir A. alludes to the crowded state in which troops are conveyed from one settlement to another—"Men, women, and children are huddled together upon the deck of the army vessel, or of some less comfortable schooner—often without standing-room, and in which condition they are kept for one, two, or three days, exposed to chills, heats, and other vicissitudes." On the benefit or injury of changing the residence of troops in the West Indies, our author offers the following opinion, grounded on facts.

"I investigated the Returns for a great number of years,—followed the move-

ments, and noted the casualties of several regiments, during the whole of their stay in the windward and leeward command,—and it appeared even to me rather surprising, how uniformly all the returns I examined supported each other, and how satisfactorily they proved these great leading facts, namely, *that the more frequently a regiment has been moved from one island to another, or from one station to another*, in the same island or colony, during its residence within the command, *the fewer men it has lost; and that the most stationary corps have always lost the greatest number of men.*" 25.

He thinks that no regiment ought to be kept more than two years in any one island or colony.

"The moral effects of such a certainty (change of air) would have a powerful influence upon the health of both; their sufferings would be endured with patience and resignation, while their spirits would be sustained with hope, and even their pleasures would be enjoyed with a contentment and moderation that would greatly check their running into excess." 29.

The great prevalence of, and mortality from thoracic inflammation, he attributes to the circumstance of the barracks being generally perched on hills, while the towns are at the bases of these eminences.

"Most of the diseases of the lungs, under whatever category they may be placed in Captain Tulloch's tables, arises from inflammatory action induced by the soldiers having to mount a steep ascent to get at their barracks, and where, on their arrival, overcome with heat and exhaustion, they expose their half-covered bodies to the chilling draughts of air that sweep through the galleries where they throw themselves down and fall asleep." 30.

Upon the insalubrious climates of Guiana—"*the wet grave of Europeans*" —Sir A. makes some pertinent observations, and detects, as he avers, some serious errors in Captain Tulloch's calculations and returns, which the parties themselves must settle. We must conclude this short notice of Sir A.'s pamphlet, with the following graphic sketch of Barbadoes.

"Of Barbados, I can speak with more certainty, having well examined it in all its bearings. This island, as is well known, is a mass of solid granite, cased with coral rock, and which evidently has been raised from the bosom of the deep, not by one effort of nature, but by a succession of efforts. The Polypes that formed the pinnacle of Mount Hillably while it was yet under the wave, may have lived some thousand years before the generations that built the next terrace; and conjecture is lost in imagining the ages that may have elapsed since even the last raised portions of this island assumed their present level. The comminuted portions of the calcareous earth are in general too scanty to admit of a luxuriant vegetation; hence, most of the hills are naked and barren; but opposed to what may be called the current of the ocean, or the force of the waves, as impelled by the constant action of the trade winds, the solid nucleus of Barbados, with its adventitious covering, have assumed the form of a crescent with the points stretching to the north-east and south-east, and forming a deep bay. In this bay the muddy waters, checked in their course, were allowed to deposit the earthy particles they had collected in their progress; and from these particles a considerable extent of solid land has now been formed, of a nature entirely distinct from the great mass of the island—a pure alluvial clay soil, mixed with the thousand and one substances that are usually found in all such recent formations. The surface of this soil is covered with every variety of vegetation and forest trees. It has of course been broken up by the action of the rains, and is now formed into mimic mountains and sequestered valleys,

abounding in mineral springs and asphaltic exudations; and, at one spot, affording the singular phenomena of a burning well.

If more attention was paid to the spiritual welfare of the troops, and greater care shown for their temporal comforts, St. Anns would be as healthy a station as any in Europe. True, it is, there are times and seasons when sickness prevails to a greater extent even here, but these are now of rare occurrence. There ought, and eventually *must* be, two regular chaplains commissioned for this garrison, a Protestant and a Roman Catholic: yes, my Lord, a Roman Catholic, for there are seldom fewer than three or four hundred soldiers professing that religion quartered here, and for many years there has not been a clergyman of that persuasion resident on the island." 40.

Our chief object in noticing Sir A.'s Letter was to introduce his testimony respecting Dr. Warburg's febrifuge, and we invite the attention of our brethren in this country to this remarkable preparation. As yet we have only tried in one case of irregular intermittent, or rather remittent fever, occurring in Belvidere road on the banks of the Thames. It baffled every remedy which we employed, and the new febrifuge among the rest. The patient, however, after the second dose, fell into a perspiration, and without sleeping, expressed himself as having passed the most delightful night he ever experienced. The fever returned the next day, as usual, and as there were some symptoms indicative of congestion in some of the large internal organs, we did not venture on a repetition of the medicine, but trusted to salines and small doses of calomel and James's powder. The febrifuge is the most intense bitter we have ever tasted; and we have little doubt that it is prepared from some of the quinquinas.

PRACTICAL OBSERVAVIONS ON DISEASES OF WOMEN. By *William Jones*, M. R. C. S. Surgeon to the Free Dispensary and Infirmary for Women, &c. and Lecturer on the Principles and Practice of Midwifery, and the Diseases of Women and Children. Illustrated with Cases and Explanatory Plates. 8vo London ed. H. Balliere.

THE object of this work may be gathered almost as perfectly from its preface and table of contents, as from a diligent perusal of it. It is the urgent recommendation of the use of the speculum in uterine affections. Nor is that object circuitously sought or insufficiently estimated. Mr. Jones puts the highest value on it. Nothing would gratify him more than *speculations* on, we should say *in*, the cases of our wives, our sisters, and our daughters.

"He has," so he informs us, "too frequently had to deplore the ignorance of those indications of the real nature of uterine diseases, attainable only by physical examination in its most extended sense, when he has seen an unfortunate patient insusceptible of relief from human skill, gradually sink before his view, while yet 'in the full pride of youth and bloom of womanhood.' Too frequently, also, has he had to encounter the many difficulties connected with the employment of the means he advocates, to be unacquainted with the prejudices of the public respecting it; but, in surmounting them, he has perceived the force of the

maxim of Cicero,—'Whatever we utter with truth, although it be praised by none, is by nature commendable.'

Another motive by which the writer has been induced to offer these observations to the consideration of his professional brethren, is the desire of bringing together a mass of facts in proof of the necessity and utility of this mode of examination, and of having an opportunity of requesting their assistance in the formation of an establishment for a fair trial of its merits in every point of view." iii.

With every disposition to approve of exact and physical means of diagnosis, we must say that we think Mr. Jones either a very unhappy or a very fortunate man, in having *frequently* seen ladies "in the full pride of youth and bloom of womanhood" sink before his view, because the speculum had not been used on them. It has not been our lot to see many such cases, and we experience some difficulty in conceiving what they could have been. Mr. Jones's experience must evidently have been considerable.

Mr. Jones's great aim is to foster an institution for the employment of the speculum. A gentle periphrasis oils the instrument—the institution being established for "the physical examination of the fair." Let Mr. Jones champion it and them.

"In requesting the assistance of his professional brethren in the accomplishment of this important object, the author solicits the exertions of their interest rather than their pecuniary assistance, well aware how innumerable are the calls that are daily made on their benevolence; and knowing also that, in the promotion of any charitable design, they possess a moral power not exceeded by that of any other body of men. Could they, as a body, but clearly perceive its utility and necessity, he feels convinced that a few months only would elapse ere such an Institution would do honor to our Metropolis; and, in truth, is not every professional man personally interested in the formation of such an Institution? Could such an institution exist for any length of time, without conferring benefit on him, his family, and the public at large? Would he not daily have an opportunity of obtaining information which could never be acquired by the ordinary routine of private practice? Would not his wife, his daughters, his patients, and his friends, derive the benefit of that information? Would not many persons be rendered comparatively happy, or at least free from disease, who are now its unfortunate victims? Surely these questions cannot but be answered in the affirmative.

But is the public less interested in the accomplishment of such design? No; every man, no matter what may be his station in life, who has a mother, a sister, a wife, a daughter, or any other female relative,—every woman whose bosom glows with benevolence, or whose heart can feel for the sufferings of another,—is bound, by all that renders life desirable, to assist in the promotion of the charitable design."

It must be clear that results of a very high description would flow from a speculum hospital. The Metropolis would acquire an accession of honor (the very pox hospital would barely do as much)—domestic happiness would receive a sensible increase—and every man who has a female relative, (a large and influential class) as well as every benevolent woman, is bound, by all that renders life desirable, to lend a helping hand. This adjuration deserves to be successful, and we should not be surprised if a strong enthusiasm is excited in the public mind. To give effect to Mr. Jones's call upon the "masses," it might not be a bad plan to suggest its incorporation with the "Charter." Perhaps "Dr. Fletcher" would move this in the

National Convention. It would not be unadvisable for every practitioner interested in the speculum cause, to enlist all his patients, and particularly his female patients, in its favour. He might carry one in his pocket, and explain in easy and familiar terms its uses, application, and advantages over the "touch." On married ladies, widows, or spinsters beyond a certain age, the practitioner might offer to manipulate. Nothing would carry conviction like personal experience, and for the sake of the sex, what man would not do as much as this?

Unreflecting persons may think the speculum a very beastly instrument. But what says Mr. Jones.

"Far, far from him be the wish to violate, or to encourage the violation of those habits of modest and delicate sensibility, which throw a halo round the sex, and give grace and dignity to the most imperfect form. May it ever be his earnest wish, as it has hitherto been his constant practice, to uphold the dignity and protect the delicacy of the sex, whilst reluctantly compelled to resort to those means, which are absolutely necessary to the mitigation of its sufferings, in many of their severest forms." vi.

At first sight it would appear a difficult matter to uphold a lady's dignity, at the instant when, on her back upon a table, with her thighs wide open, and her knees up to her chin, a gentleman of sad demeanour is curiously peering up her vagina with the assistance of a wax, or a tallow candle. But the conscientious surgeon and the enthusiastic patient may find a moral dignity in their mutual relations which escapes ordinary observation.

Mr. Jones is impressed with the vastness of his plan. Let him but get the hospital upon its legs, (perhaps the metaphor should change positions and lie upon its back) and he will die with pleasure. Such devotion requires to be signalized; it is not common in these days.

"In conclusion, if any thing the writer has advanced, have the effect of inducing a single practitioner to resort more frequently to physical investigation, in forming diagnoses of diseases, especially of women;—should it ever be his lot to see the sapling Institution, whose cause he has advocated, become the perfect tree, affording shade and shelter to all that come within its reach;—then will his object have been attained,—then will he have no reason to regret his labor, but will 'lay him down in peace,' happy in the assurance of having contributed in some small degree to the alleviation of those sufferings, which fall with peculiar severity upon the more amiable portion of humanity." viii.

If the ladies are not sensible of the chivalry of Mr. Jones, they deserve never to have a speculum employed upon them. He offers (can he do more?) to die in their behalf. Only let him put them in a fair train for examination—only let him make "physical exploration" fashionable—only let him once see specula popular—and then, like the prophet, he will lay him down in peace. Ladies of England, can you refuse to pull up your petticoats at such solicitation?

The Work consists of Two Parts. The first is on the Necessity of Physical Examination, and on the use and application of the Speculum. This part contains five chapters. They are severally intituled:—

Of Physical Examination in cases of disease generally—Of Physical Examination as applied to Diseases of the Uterus in particular, and of the various modes of performing the Taxis—Of the Physical signs recognizable by the Taxis in the healthy uterus;—in the unimpregnated state,—during

Gestation,—and after Parturition—Of the Speculum—its use and application; and of the Physical signs appreciable thereby—Of the objections which have been advanced against the use of the Speculum.

The second part is made up of fifty-two cases, which occupy more than one half of the work.

Passing over the three first chapters, which contain nothing authoritative enough to arrest us, we pause at the fourth, which treats of the Speculum, and of the physical sighs appreciable by it. We copy our author's observations on the instrument that he prefers, and on the mode of using it.

"The instruments I have generally found sufficient for all practical purposes, are Recamier's metal tube, or a simple glass tube of the same dimensions,—Ricord's two-bladed Speculum—and, very rarely Weiss's Speculum with four blades; and of these, the one I employ most generally is the two-bladed instrument of Guillon or Ricord. Recamier's speculum is principally of value in cases wherein it is desirable to apply caustics, leeches, and other applications to the cervix uteri, and we wish at the same time to prevent them from coming into contact with the vagina; Ricord's two-bladed instrument, or Weiss's instrument with four blades, is advantageous in the examination of women who have borne children, and in whom the relaxed vagina, protruding through the three-branched instrument, prevents the free inspection of the uterus. The dilator is most applicable to younger females, or to cases wherein it is desirable that the condition of the vagina should be known, as a Vaginitis, &c. Whatever may be the form of instrument employed, the female should be made to assume the recumbent position, with the pelvis somewhat elevated,—the thighs and legs bent and separated, so as fully to disclose the genital organs. When (having previously immersed the instrument in warm water, so as to prevent the sensation of cold, which usually follows the application of metal to the surface or interior of the body, and having covered it with spermaceti ointment, or cold cream, so as to facilitate its passage within the vagina), the operator proceeds to its introduction:—

In the first place he separates the labia externa and nymphæ, with the thumb and second finger of the left hand, so as to disclose the orific of the vagina, and retains them separated, until the index finger (previously oiled) be introduced within the vagina:—the index finger having reached the cervix uteri, points out the locality of the uterus, and serves as a guide for the speculum, while it makes pressure on the lower part of the vagina, and dilates its cavity; meanwhile, the speculum, held in the other hand of the operator, is gradually conducted on the upper surface of the finger, along the vagina, till it reaches the cervix uteri,—the finger being gradually withdrawn as the speculum advances. The depression of the fourchette and perinæum by the finger *vagina*, not only dilates the cavity of the vagina, but prevents contusions of the meatus urinarius, which might otherwise result, from its being compressed between the instrument and arch of the pubis. The proper position of the patient may be obtained by placing the patient across a bed, bringing the pelvis close to its side, and supporting it and the head, by means of pillows, but it cannot be so readily attained as by means of a table which I have contrived for the purpose, and of which the subjoined is a rough outline. In consists of a frame, supported on four legs, to which a cushioned top is attached by hinges at one extremity; by means of these hinges and a rack placed beneath it, the top of the table may be made into an inclined plane, so as to give to the pelvis the requisite elevation; by means of the cushion for the lead, those inconveniences may be obviated, which might result from retaining the head in the dependant position. To prevent the legs of the patient getting in the way of the operator, two iron rods with semicircular cushions are attached to the table, over which the legs are placed;—these rods are moveable, and capable of giving different lengths, to correspond with

the varied extent of the *femora* of different females. The operator, seated in front of the table, introduces the instrument in the manner described, and if the operation be performed in a light room, and the woman be placed facing the light, the cervix uteri is fully exposed, and its condition easily appreciated. In other cases it is necessary to employ the light of a taper. The complicated instruments, with mirrors, recommended by Segalas and others, or even the employment of a mirror of any kind, is not only unnecessary, but may, by the refraction it occasions, induce incorrect ideas." 71.

We add the following brief statement of the conditions of the cervix uteri, under the circumstances pointed out:—

"If the unimpregnated uterus be examined by the speculum, it cervix is found to be of a pale rose red colour, in young females; of a brighter hue in middle-aged women; and of a faded greyish pink colour in women advanced in years. It becomes swoolen, and is found to be of a darker red, at, and immediately antecedent to each menstrual period. Externally it is always moistened with a coat of thin mucus; its orifice, on the contrary, frequently contains a small quantity of viscid fluid, secreted by the vesiculous glands, lacunæ (*glandulæ nabothi*), which are situate within its cavity. The membrane lining the cervix uteri in health, is of the same colour as that covering the vaginal surface. During gestation, the latter months especially, the membrane covering the cervix uteri, and lining it and the upper part of the vagina, is of a purplish hue; probably resulting from the impediment offered to the free return of the blood from the extremities, by the pressure of the gravid uterus; or rather from the congestion necessary to the supply of materials to the fœtus *in utero*." 72.

The fifth chapter is on the objections which have been advanced against the use of the speculum.

It may well be believed that Mr. Jones sees little force in the objections to the speculum, much in the arguments for its employment.

Vision he argues to be an important sense. The eye, he says, is the organ which affords the clearest and most important indications, in every disease which can come within its scope in the living subject;—the lynx eye it is which constitutes the great accomplishment of the physician; and without an eye he would rarely be consulted even by the public, much less by his professional brethren. All this may be safely granted, and yet it does not go far towards the settling of the matter. Nobody would shut his eyes when he could unobjectionably open them. But it is contended that the indecency of the speculum is not counterbalanced by equivalent advantages.

Mr. Jones, however, is not of this way of thinking. He is an unflinching advocate of the employment of the instrument, and not more unflinching than successful. So, at least, it would appear from the following passage.

"Women, it is asserted, will not submit to the employment of the speculum. To this assertion, however, I must beg to offer my unqualified denial; because for the last four years I have myself been engaged in the daily (I might almost say hourly) use of the speculum, as well in private as in dispensary practice, alike in the humbler, the middling and the higher classes of society; and I have rarely met with the objections and prejudices which some practitioners assert to exist against its use. Indeed, I have rarely found women those senseless beings which some individuals would induce us to believe them; and I have yet to discover one, even one, who would prefer retaining a loathsome and perhaps fatal disease, to submitting to any examination for its removal, provided the nature

and object of the examination were properly explained to her, and she were, by such explanation, convinced of its necessity, and of the total impossibility of adopting any scientific treatment, without its employment." 91.

The secret of his good fortune is discovered by himself. He does not rudely assault delicacy, he gently overpersuades it. In this he appears to be a master. Few women, we should imagine, could resist his insinuating advances. The ladies, we are confident, vote him unanimously "a dear man." Listen to "the artful dodger."

"Fully convinced of the total impossibility of forming correct diagnoses in diseases of the uterus, or its appendages, without the assistance of physical examination, I have long since felt the equal impossibility of commencing a scientific treatment without its employment; and whenever I have reluctantly yielded to the wishes of individuals, or to the common usages of the profession, by *commencing* a treatment founded on the obvious existence of certain derangements of function, without a knowledge of the alteration of structure on which they were dependant (as I have frequently been compelled to do,) it has been solely for the purpose of gaining the confidence of the patient, and of seizing at some subsequent period (provided the symptoms did not yield to the palliative treatment I might chance to employ.) a proper opportunity to explain to her that the symptoms observed might result from any one of a great number of different diseases, of which the particular affection which gave rise to them in herself, could only be determined by physical examination, and to solicit her submission to its employment; telling her, at the same time, that without a knowledge of the nature of her disease, we might continue our hazardous treatment for months or years in succession,—might exhaust the whole range of the materia medica in our fruitless efforts to relieve her, and find at last, too late, that instead of mitigating her symptoms, we had only been aggravating her disease, and converting a simple and easily treated affection into a formidable, appalling, and perhaps fatal malady." 97.

What petticoat could be closed to such solicitation? We might as well try to find "a cat averse to fish," as a female obdurate to such a prayer. The representations contained, may be, perhaps, un peu trop fort. But what of that? Is eloquence to be chained to the slow and heavy wheel of mere demonstrable fact? It would lose its very name and being. The pleader's art may be fairly essayed in the great cause of the speculum.

It will be found that Mr. Jones's success has emboldened him to apply the instrument pretty liberally. Maid, wife, and widow, are fish for his net. He would apparently, if he could, start with a speculum in every case in which "the parts" have a flaw. From amenorrhœa upwards, all affections require, or justify the use of the instrument—all, excepting such cases of morbid growth, as present a palpable and sensible alteration. This is a pretty liberal code. Our young ladies have a treat in store if it prevails. The Ovidian recipe for fractured virginities must needs grow rather fashionable. This professional mode of taking a maidenhead will not, we fear, be much in vogue with the male sex. As Mr. Jones observes, such an objection too frequently arises from the said males' sensuality. We quote, in order that we may not unintentionally misrepresent our author.

"Another objection which has been raised against the speculum is, that it may be used unnecessarily, and may not afford a single symptom that could not have been discovered by other means; but this objection is untenable, for negative evidence is frequently as valuable as positive; if, for example, a patient had

complained of profuse discharge from the vagina, and on examination with the speculum, the vagina should exhibit no change of structure to account for it, we should thence infer thad it did not proceed from disease of the vagina itself, but from the suffering communicated to it by some neighbouring or distant organ, and we should then have to determine what organ it were whose derangement had given rise to it; the speculum is not *therefore* unnecessary, but it is unnecessary, *when it cannot be made use of*; when, for example, a simple disease has been allowed to proceed insidiously, unnoticed or disregarded, and has filled up the whole of the vagina with a morbid growth,—or when in the advanced stage of cancerous affections, the vagina is contracted by the deposition of the morbid material, and the finger passed over it instantly recognizes that peculiar sensation characteristic of cancer or scirrhous disorganization, which must be felt to be appreciated, but which having been once felt can never be forgotten. In every other case it is necessary; for, although it be true that we may recognize the presence of a tumour by the touch, we canuot determine the nature of that tumour without ocular examination, and should confound (as frequently has been done) fungus with polypus, scirrhous with simple induration, &c." 99.

Mr. Jones warms as he proceeds. In summing up, he announces that the practitioner who does not use the speculum incurs "an awful responsibility." Those who are tainted with professional levity may fail, perhaps, to perceive this, and may remain very unconcerned at their serious situation. Mr. Jones evidently feels it no joke, and he concludes in a strain, borrowed as he confesses from Dr. Blundell, which is of a very animated and impressive nature.

"'The more the discussion, the more objection and defence it has to undergo, the better. If it be grounded in error let it perish; if in just principles, it must survive. From the most violent conflicts of opinion truth has nothing to fear; though long to us, to her a thousand years are but as one day—a point—a nothing in the eternity of her duration. Oppressed amongst us, beneath the chaos of human follies and errors, she must, she will emerge unhurt at last—unchangeable as her Author. By the mere force of durability she must ultimately stand alone, solitary amid the wreck of those perishable materials by which for a time she is overwhelmed.

The stars may fade away—the sun himself
Grow dim with age, and nature sink in years;
But she—

the living spirit of philosophy, immutable, immortal, infinite, eternal TRUTH, she, the parent of all knowledge, fountain of light,—

———will flourish in eternal youth
Unhurt, amid the war of elements,
And wreck of worlds.'"

Of course it is not meant that the speculum will literally flourish unhurt, amid the wreck of worlds. This only expresses Mr. Jones's anticipation in a figurative manner. It is a peculiar feature of the speculum, that it breeds a highly poetical strain in all who advocate its introduction. They assume the lover's ardour, and seem almost to have "eaten of the insane root." Our readers may remember the paroxysm of fervor into which Dr. Balbirnie worked himself. Here is Mr. Jones, in a mood almost as poetical. He does not, indeed, like the Doctor, proclaim himself, the "Apostle" of the Speculum, but he announces how willingly he would die for it. Is there any other instrument of which we could say so much. Who offers to die for a bougie, to be the apostle of the "cutting plyers?" The charming sex

to which the speculum is devoted, has shed its enthusiasm on the votaries of the speculum.

Dropping the tone of badinage, we may briefly express our opinion of the instrument. We do think it over-rated by gentlemen like Mr. Jones, while it is not in general sufficiently resorted to in practice. But we cannot conceal from ourselves and from the patient, the indecent and disgusting nature of the process of employing it, nor will we conceal our impression that the cases which require it, are much, very much less frequent than writers like Mr. Jones or Dr. Balbirnie, represent. We bring the subject before our readers, in order that the discussion to which it gives birth, may lead to a more stable, and an experimental appreciation of the real service the speculum is likely to perform. That service, we are sure, would not be inconsiderable, were there not the drawback of the extreme indecency which sticks to the employment of the instrument. That will, we apprehend, form a bar to its extensive use in this country, in the middle and upper classes of society.

We hardly know whether to regret this circumstance. If science loses by such delicacy, morality and the interests of society gain, and, perhaps, after all, the balance is even. We are quite sure that the advocates for the speculum over-rate its utility and exaggerate its necessity. The other means of diagnosis though avowedly, in some instances, imperfect, are in the great majority, adequate to the occasion.

We have only to add that we have no intention of giving pain to Mr. Jones, by any tone of ridicule which may have tinged our observations. The subject, or rather the mode of handling it, invites it, and enthusiasm on an author's part, carried past a certain limit, requires the pruning-knife of gentle satire. The merit of enthusiasm we freely award to Mr. Jones, and probably his next essay will be sobered by discretion and experience.

ESSAY ON THE CLASSIFICATION OF THE INSANE. By *M. Allen*, M. D. &c. London, pp. 212.
ALLEN *versus* DUFTON. London, pp. 146.

THE first position assumed by Dr. Allen is that "two establishments, on the same grounds, should be allowed and encouraged for the purpose of classification;" and, growing out of it, his second is, that not only should there be two establishments on the same grounds, but these two should be sufficiently separated to prevent annoyance. These again he would have further divided into a front and back part, and the front so contrived as to be in appearance distinct from the back. And, in many cases, he considers an entirely separate house to be needed.

"I have known cases, the cure of which would have been apparently blighted and blasted for ever, if they could not have been wholly removed from, not merely the real, but the apparent, associations of former scenes and circumstances, and this without any change in their servants and medical treatment and attendance, which is also essential." 4.

Truth, justice, and kindness constitute the basis proposed by Dr. Allen of all dealings with the insane. By the first, their confidence is secured; by the second, their judgment; and by the third their affections. Not more than about 3 per cent of his patients suffer any personal restraint. And in the separate house under his own supervision he speaks of parties in every front division "who would, in their conduct and pursuits, and social enjoyments, put to shame many families who are reckoned perfectly sane. We have visiting parties from house to house, with the usual amusements of cards, chess, billiards, cricket, &c. For some months we published a weekly newspaper of considerable interest. Nor is it unworthy of notice, that some articles of a very superior kind in our critical journals have been written in this place; all which gives it more an air of social enjoyment and comfort, than the coldness and repulsiveness usually attendant on the loss of liberty, and forms within ourselves, a little world of interest, better suited, I believe, to the state of the inhabitants than the real world could be to them."

Upon such a foundation, he goes on to rear his superstructure for the classification of the insane, and the first maxim laid down is, that to *tranquilize the mind*, is the best preparation for restoring the affections to their equilibrium, and the natural functions of the body to their healthy state; for dispelling the mists of delusion, and bringing back to its vacated throne, the fugitive understanding.

Another and scarcely less important principle is insisted upon—namely, the treatment of the insane being delicate and intellectual. The author cites several interesting cases of mental derangement, where the apparently hopeless condition of the patient was at first ameliorated and finally changed to a condition of soundness and healthfulness—and we can only regret that our limits do not allow of our citing them.

Dr. Allen lays it down as another essential principle to know every extreme view and error to which the human mind is liable, "and where these exist, as in most cases of insanity, to endeavour to counteract them by clear and beautiful views of the truth."

"What is of the greatest consequence is, that it is still more necessary to know the best mode of making truth admissible and effectual; for it ought never to be forgotten, that in all cases where error and delusion exist, even if we know those views which are best calculated to counteract and remove them, still more depends on the manner, circumstances, and spirit in which we present and apply them." 46.

To establish, cultivate, and encourage in lunatics the habits of self-restraint and self control, to induce them to restrain themselves, to control their own actions, in preference to making them feel the restraining and controlling power of another, is also a great principle, though not, perhaps, sufficiently carried out. In the eloquent language of our author, whose words are always preferable to our own:—

"Nothing but absolute necessity should justify absolute restraint.—*It must always be considered as an evil to which we are reduced, in order to avoid a greater.* Whenever it is unnecessary and continued too long, it will do more harm than good; the furious will be made more furious, and the suicide more determined to effect his purpose. Whenever the patient is indulged with more liberty and behaves better, we must have forbearance to the utmost extent, and submit to all possible risks, losses, and expenses, rather than again have re-

course to it; and when it is repeated, the patient must be made if possible, to feel that it is deserved.

Their faults, like those of children, must be viewed with pity. They are the wild displays of feeling, without understanding. We must make excuses for them, often overlook, as often visit them slightly, only seldom with seriousness, and always with moderation, justice, and prudence. No evil is greater than the evil of constantly chiding and suspiciously looking for faults. It is an evil spirit that poison and inflames everything within its sphere. A contrary spirit has a healing influence; though it requires numerous attendants, and makes the whole business of superintending the insane a source of constant and intense anxiety and solicitude." 68.

But these may rather be said to be principles of treatment, than rules for classification. Some of these we now proceed to notice.

Some cases require to be associated with others of an opposite character, grave with gay, and lively with severe; for such, by being thrown together, neutralize, like acids and alkalies, each other.

Other cases, on the contrary, require assimilation, in order to awaken comparison, and are cured by the patient witnessing his own condition caricatured in that of his neighbour.

Many cases, again. in their incipient stages, while requiring seclusion and separation from friends, would be only aggravated were the sufferers to be set down at once among other patients.

The necessity is obvious of separating the boisterous, dirty, and epileptic, from the more rational, the cleanly, and the nervous.

The prevention of bad habits in some, by the constant presence of others, so as to awaken the sense of shame, and the habit of self-restraint, calls for another division of patients. This requires great tact and discrimination in the association. The preferable class must not be injured by their intimacy with the more degraded, while the object of improving the latter by their society, is sought.

In proof of the practicability of conceding with safety, much real, or apparent liberty, Dr. Allen adduces, in opposition to the common dread of suicidal attempts, the fact, that in his own experience, he has had but one occur of suicide out of 600 patients, and that person "had secreted a rope and effected his purpose the day after his arrival, by pretending to retire to a place of convenience."

Another fact, certainly not less striking, will serve to show the safety with which many patients might be allowed greater freedom of locomotion, even so far as their personal detention at a particular residence is concerned.

"It is remarkable," we give the statement in the doctor's own words, "that many have in an incipient state of convalescence, been placed on parole of honor; first, they are simply restricted to the garden, and afterwards to the fields; and if no breach of confidence occurs, they are allowed a pass key to go out and in when they please, and scarcely an instance has occurred in which they have taken advantage of this privilege, to make their escape; nor have they opened their doors to others. *Those who escape are always those who are not so trusted.*" 98.

The "Essay on Classification" forms but the smaller third of the entire volume, another third is taken up with an appendix of cases, one of which we shall transfer to our own pages. And the remainder of the book

is occupied with a report of the case of Allen versus Dutton, in which, it being a matter altogether personal, our readers would feel but little interest. The plaintiff obtained a verdict—and appears also, upon motion for a new trial, to have received the opinion of the Judges on his behalf through the goodness of his cause.

The only case for which we have left ourselves space, is one of an encouraging character, and one which, as Dr. Allen confesses that to it he is indebted for much of his success, we have some pleasure in selecting.

The patient was a dissenting minister, of partial and gloomy views, pushed, of course, into extremes. A zealot, violent and vindictive. Every opposite quality of his mind was in excess, and had always been in a highly excited and irregular state. He had been for many years kept in a painful and irritable condition; and conjugal infelicity with domestic strife had just before terminated in mutual separation. The form of his derangement was thus easily traceable to the circumstances by which it had been induced.

"He was in a state of the most furious mania;—his was one of the most violent and distressing cases I had ever seen. It is impossible to convey any adequate conception of its appalling nature. His language was obscene and vulgar, and his horrible oaths and blasphemous speeches were poured forth for some weeks without ceasing, and without sleep, with a volubility, rapidity, and a voice so loud, and so foaming with passion, and with such a frightful expression of countenance, that even those most accustomed to such scenes, and of the strongest nerves, trembled before him. He had a demoniac energy and eloquence, which was indeed, of the most harrowing awful kind. It was truly terrific! for even at a distance, his voice sounded like a river escaping some narrow part, and rushing with impetuosity over every thing that would impede its course.

One principal subject of his furious raving, was his favorite doctrine of election; or rather, perhaps, I ought to say, his blasphemous doctrine of reprobation. He was constantly denouncing every one (and against myself he was peculiarly severe) as lost, whose belief on this point was not, even in phraseology, the same as his own; calling on God to execute vengeance upon them; then blaspheming God, that his prayers and commands were neither heard nor obeyed; taunting and cursing him with a contempt which no language can describe; calling his clemency weakness, and his not executing his decrees a proof he did not possess the power he pretended to have.

On the subsidence of his excitement, he was overwhelmed with the perfect recollection of all he had uttered during the utmost fury of his dreadful ravings, and his state was truly miserable and deplorable. In this state I took great pains with him, treated him with every possible kindness, and endeavored to shew him every possible mark of my confidence, one instance of which may be mentioned. I gave him, at a very early period of his convalescence, a set of manuscript sermons, all in loose slips, and which he read with great pleasure and preserved with great care. * * * The spirit of these discourses just suited his altered state of mind, for he himself felt horror-struck at the views which had led to such awful consequences.

Though his furious state was so unusually violent, yet it was of long duration, and after it had left him, it was some time before he was able to overcome the painful reflections which came over him; he, however, recovered, and returned home in the September following, since which period I have received many, and almost constant proofs of his great gratitude and attachment to me."

With this case we close our notice of Dr. Allen's work, by recommending it to the perusal of the reading public, particularly of those employed in the

custody of insane persons. We cannot do so, however, without protesting against the slovenly hotch-potch shape in which it has been transmitted to us. It has a title, it is true—but there is no date to the title-page—and even Dr. Allen appears to have his part of the blame, for the Essay is *not* what it purports to be, an Essay "on Classification," but rather on the moral as opposed to the mechanical treatment of insanity. And having been commenced as part of a personal defence against his already overthrown adversary, Mr. Dutton, although the defensive attitude is soon abandoned, there is an incongruity and total want of connectedness about the Essay itself. Indeed the whole work is a misnomer—the numerous cases in the appendix, have nothing whatever to do with the subject of classification, from beginning to end—and, as little to do with it has the disgusting history of the poor woman whose case was brought into court on the trial, to which we have already assigned our reason for not inviting more particular attention.

LECTURES ON DISEASES OF THE EYE. By *John Morgan*, F. L. S. Surgeon to Guy's Hospital, and Lecturer on Surgery at that Institution. 8vo. pp. 221, 18 coloured plates. Highley, 1839.

THE modest announcement we shall quote, will explain the author's aspirations in publishing the present work.

"The following Lectures are published at the request of my pupils, and not from any wish, on my part, to appear before the profession, and the public, as an author of what will, I fear, be considered by them, as a very imperfect work, on the subject of Ophthalmic Surgery generally. This admission will, I trust, shield me from hypercriticism. Neither as a lecturer, nor as an author, do I put myself forwards as a competitor for professional fame and distinction, with those who have preceded me as the public instructors of their students on the science herein treated of, and as advocates for the connection of Ophthalmic with general Surgery; but having been repeatedly urged, not only in private, but publicly, by so many of my class to supply them by publishing my Lectures, with that, which they considered would be a short text-book for their guidance after they entered into practice, as well as during their studies at the Guy's Hospital Eye Infirmary, I now do so in compliance with their wishes, in the hope of affording them a permanent and perfect reminiscence of those instructions, which I have spent so many proud and grateful hours in offering to them. I cannot refuse to take all the chances of good or evil which may await me, in thus acceding to the wishes of my young friends, although laying myself open, as I doubt not I am now doing, to the censure of many who, perhaps, from various causes may have expected something better than my present production.

My object has been to describe concisely and clearly the more common and the more important diseases, to which the eye is subjected, with what experience has taught me to be the best general treatment, and to illustrate, as much as possible, the analogy between diseases of the eye and those of other parts of the body.

If a detailed account of *every* morbid appearance connected with the component parts of the organ of vision, minutely and classically described, be required

I must refer my readers to the works published on the subject by Travers, Lawrence, Mackenzie, and some others; I have no pretensions to oppose to the learned productions of those gentlemen the humble volume, which is now offered to the student of Ophthalmic Surgery."—*Pref.*

This confession would disarm criticism, and, even were it strictly true, a minute examination of defects would be ungenerous. But Mr. Morgan has not done justice to himself, and the work is one which others besides his students may consult. It is a plain, judicious, and practical treatise. It gives the pith of what is known and of what it is requisite to know, and avoids those minute details, which, however appropriate in systematic works, fail to sustain their claim to utility in the actual practice of ophthalmic art.

That the science is overlaid with terms, and that refinement has "gone the whole hog," cannot, we imagine, be denied. Simple effects of simple causes, analogous to what occurs at every turn in other regions of the body, have been baptised with jaw-disturbing names, and trivial appearances have formed the subject of chapters. Mr. Morgan admits this, though the passage we shall cite has been written with another object.

"The long established practitioner, in whose younger days this study was neglected, cannot perhaps be expected 'to go to school again;' his numerous professional avocations prevent his doing so. He takes up, however, in a leisure hour, a long spun treatise on Ophthalmic Surgery, (having no time either to attend Lectures on the Pathology of the Eye, or to avail himself of the practical knowledge to be obtained in the wards of an Eye Infirmary,) and in that voluminous production finds a surprising variety of terms descriptive of common diseases, which, if reference is had to the treatment of the same diseases occurring in the structures of other parts of the body, will be found to yield to the same class of remedies; but the multiplied names by which they are designated, bewilder him as a beginner so completely, that he gives up the subject in despair, under the soothing persuasion and consolation, that others far more distinguished than himself in his profession, are just as little, if not less, acquainted with eye diseases than himself." 4.

The farrago of terms bandied about by professors of ophthalmic surgery would be utterly absurd, were they not mischievous as well. But we quit this subject.

We shall skim lightly Mr. Morgan's book, and pick up here and there some practical remark from its surface. Connection in our quotations is out of the question. They merely embody a few scattered hints dropped by a man of plain good sense and information.

1. *General Rule in Treating Diseases of the Eye.*—"In active diseases of the Eye, there is one general rule, which you cannot remember too well,—it is 'never to rest contented with merely checking the progress of disease,'—never, if you think that you can prevent it, by pushing your remedies still farther,—never allow a disease of the eye to remain stationary. In other organs, where you have neither the transparency or integrity of a delicate tissue to preserve, nor an expanded sheet of nervous matter to protect from the slightest causes of disease, this may not be a point of any very material consequence. But, in active diseases of the eye, the delay of remedies for twenty-four hours will, in some cases, prove a sufficient cause for complete disorganization of the organ.

Never, therefore, in any cases, or under any circumstances, rest satisfied with watching day after day the partial control of remedies in Ophthalmic disease,

Unless you are daily diminishing that disease, you are doing your patient more harm than good, by your treatment; for whilst you are watching and waiting for the more obvious effects of your half measures, the half-controlled disease will be insensibly extending to more important parts; and by the time you have determined upon altering the plan of treatment, either the functions of the retina will have been destroyed, or the condition of the transparent parts of the eye will have been permanently changed. Therefore, remember, that in allowing any active inflammatory disease of the eye to remain stationary for a day, you are endangering the safety of the organ. This rule may apply to all inflammatory diseases of important organs; but it is more particularly applicable to the organ of vision." 9.

2. *Distinction between Catarrhal Ophthalmia and Ophthalmia from Extraneous Bodies.*—Mr. Morgan judiciously observes, that these two affections are not unfrequently confounded, or one is mistaken for the other. His hints on their discrimination are simple and satisfactory.

In catarrhal ophthalmia we frequently find a distinct surface of inflamed conjunctiva upon that part of the membrane which covers the lids, and upon that part only. In those cases, where inflammation of the membrane arises from the irritation of a foreign substance pressing upon the part, this partial effect can never be produced; for the local irritant being placed between the conjunctiva of the globe and the conjunctiva of the lids, will press equally upon both; and, therefore, any appearance of increased vascular excitement observed in one part will be attended with a similar indication of disease in the other,—the foreign body pressing equally upon both surfaces will produce a degree of inflammation in the conjunctiva of the globe corresponding with that which is observed in the conjunctiva of the lids. In one case, then, both surfaces will be necessarily inflamed. In the other case it occasionally happens that one surface only will be the seat of disease.

In addition to the general inflammation of the conjunctiva of the globe following the introduction of an extraneous body, a copious secretion from the membrane and from the lachrymal gland is immediately and constantly poured out. In catarrhal ophthalmia this secretion is neither so profuse nor so long-continued as in the other case. Mr. Morgan admits that these diagnostic symptoms are not applicable to every case, but he contends that they are so to many.

3. *Treatment of Catarrhal Ophthalmia.*—One would imagine that if medical men could agree to any thing, it would be on the treatment of so common a disorder. The contrary is notoriously the case. We shall mention Mr. Morgan's plan of treatment, and leave our readers to judge for themselves of its propriety.

He commences by a brisk mercurial purgative, and, perhaps, an emetic. Then come general, (rarely), often local bleeding—a light shade, and avoidance of heat and light—*generally*, saturnine, or evaporating washes, *sometimes* warmth and moisture, *always* deference to the feelings of the patient—the introduction of some mild ointment between the lids at night—diaphoretics, and apperient neutral salts—in the chronic stage, blisters, to the temple or the nucha, and a collyrium of equal parts of aqua rosæ and vinum opii.

We would hint a single objection. So far as we have seen, warm applications have been more useful in the early stage, stimulants in the later, than Morgan represents them.

4. *Wrong and right Modes of examining an inflamed Eye.*—Mr. Morgan rather dwells on this matter. He presents three drawings, and matches them with three descriptive sketches. The thing seems trivial, is important, and we quote the passage which refers to it.

"The usual mode in which a bungler makes the attempt is represented in fig. 1. Each thumb is placed on the margin of the tarsal cartilages—pressure is made down upon the globe—the orbicularis contracts powerfully from sympathy—and thus the conjunctiva of the lids and of the globe are rubbed together as the lids are slid over the anterior part of the latter. The natural consequence of this mode of proceeding must be obvious; when two inflamed membranes are rubbed and pressed together, of course the diseased action will be increased; and, consequently, when a successful effort has enabled the operator to draw asunder the lids in the manner I have now described, it is found that the vascularity of the part is very greatly increased from irritation produced by previous pressure and friction.

This, then, is the most common mode of opening an inflamed eye improperly, and the consequences are always as I have stated.

The next diagram (fig, 2) represents a less common, though at the same time a far more injurious, mode of making the examination. It consists in the process of insinuating elongated finger-nails between the lid and the globe, and thus clawing the inflamed surfaces asunder. That such an operation must necesarily tend not only to produce a temporary excitement, but also a permanent increase of inflammatory action in the part will not be doubted. Yet I know from experience that this operation is practised too frequently to be passed over in silence on the present occasion. Look at these two diagrams, and see whether before you are twelve months' older, you do not observe an illustration of the error here represented.

Having now shown you the consequences of an unskilful attempt to open an inflamed and swollen eye, I will next describe to you the proper mode of performing this very simple operation.

Your object will be to *separate* the inflamed surfaces of the conjunctiva of the lids and globe at the time you are opening the eye, and to avoid making any pressure upon the part; this will be easily accomplished, unless excessive tumefaction of that part be an obstacle, by gently drawing the integuments of the lower lid downwards towards the cheek with the point of the fore-finger of one hand, and with the thumb or fore-finger of the other, drawing the skin covering the upper lid upwards towards the supra-orbitar ridge,—the diagram (fig. 3) represents what I have described. Be careful in opening an eye to avoid throwing a strong light on the part, as it sometimes renders the operation difficult, from the spasmodic contraction of the orbicularis palpebrarum, and in cases where the retina has been rendered morbidly irritable, a temporary increase of vascularity will generally be the consequence.

You may perhaps think that I have laid great stress upon a comparatively trifling subject, but experience will prove to you that minor points in your surgical practice are of more importance than you may now suppose." 26.

We quite agree with Mr. Morgan on the right method of examining the eye. But, in spite of his diagnostic suggestions, a difficulty may occur in determining whether there is not some little extraneous particle lodged beneath the superior palpebra. The mode of examination recommended will be insufficient to determine this, and eversion of the upper lid is requisite.

The apparatus of a probe, and of a good deal of pulling at the cilia, may often be entirely dispensed with, a quick jerk at the lashes being sufficient for the version of the tarsal cartilage. This should never be done until the simpler examination has been first made, and the actual amount of vascularity appreciated. However dextrously it may have been accomplished, it is certain to occasion suffusion of the conjunctiva.

6. *Pustular or Apthous Inflammation of the Conjunctiva.*—This, as is well known, is considered by some, and, we think, on very insufficient grounds, the strumous ophthalmia. Be that as it may, we notice Mr. Morgan's account of the mode of vascularity of the pustules or aphthæ, for a reason, which will be presently apparent. We should state, in limine, that Mr. Morgan compares the conjunctival pustules with the ordinary aphthæ of the gastro-intestinal mucous membrane. We now quote the passage to which we have referred.

"If seen in the very commencement, a minute whitish raised speck will be observed on the surface of the membrane, around which extremely minute bright red vessels radiate, in the form of a plexus, and are tortuous in their course, and occasionally in the *first instance* receive no visible supply of coloured blood from adjacent larger trunks. The reddened circle is perfectly distinct, and if occurring on the sclerotic conjunctiva, where its cellular connection is comparatively loose, it can be distinctly proved by moving the aphtha from side to side with the point of the finger, that no subjacent supply of red blood is sent to the part through its base from the vessels which lie behind it. After a time, conjunctival vessels in the form of a fasiculus, are seen carrying red blood from the circumference of the globe to the aphtha, and then pour out their supply to its surrounding vascular zone; but not always in the first instance, for the zone is in some rare cases circumscribed and distinct. Now, of course, you know that aphthæ or pustules in other parts are surrounded by a red margin, and have been told that this arises from the passage of red blood from larger trunks into those minute ramifications of the vascular structures formerly carrying colourless blood. On examining the part, however, to see the causes of the change which has been going on, you see only a blush of inflammation, the vessels being too small to admit of examination without the aid of a strong magnifying power; but it is not so when inflammation attacks the conjunctiva, and reddens that membrane; for, under such circumstances, the fact is proved to you by ocular demonstration. But a still more interesting pathological fact appears also to be proved by one circumstance I have mentioned, viz. that in inflammation the change of the fluid contents of an artery from colourless to red blood does not necessarily depend upon the direct transmission of the red particles from a larger trunk into the dilated capillaries; that such change does take place is undoubted, but that the redness of an inflamed structure depends exclusively upon this mode of altering the colour of the component parts of the circulating medium is surely rendered more than problematical by the already described phenomena (to which others might be added, and) which present themselves so clearly to our notice during the commencement of the formation of a conjunctival aphtha. How can we suppose, in these cases, that the colour of the blood is changed in the vessels, unless we look for some cause in addition to that of the mere mechanical conveyance of the red globules from the larger to the smaller branches of an artery." 29.

We do not clearly see the drift of these observations. How the vascular zone is to get red blood, in any other way than through the medium of vessels which have brought it, is not obvious to our understandings. Mr.

Morgan does not appear to be aware that vessels which convey but a single row of colored globules of the blood, will not be visible by the naked eye. Supposing such vessels to become dilated at their extremities by inflammation, the dilated portions will exhibit vascularity, while the undilated parts will be invisible. This appears to us the simple solution of the difficulty which perplexes Mr. Morgan. At all events it is more consistent with probability than the rather mysterious idea which he entertains, of some undefined alteration in the blood.

The treatment of this disorder may interest our practical readers more than discussions of the preceding description. The complaint is almost always troublesome, not unfrequently contumacious to the last degree. Any hints on its effectual management will be gratefully received. First we subjoin one or two very sound remarks upon tonics.

"The different preparations of cascarilla, calumba, or bark, in combination with an alkali, more particularly ammonia, may be used with advantage, if judiciously given. In addition, an occasional purgative will be found highly beneficial, but strict attention to proper regulation of diet cannot be too strongly insisted on. In these, and indeed in all cases of disease, tonic medicines should be avoided when tonic diet can be substituted. If the digestive organs are performing their healthy functions, and you meet with no disturbance in the nervous and vascular systems, further than that which debility alone will occasion, regulate the diet of your patient, instead of loading his stomach, as too many are in the habit of doing, with bulky tonic drugs. Tonics and stimulants, in the way of medicine may certainly be required sometimes; but not, I believe, as often as they are given, and they ought never to be employed in those cases where the different secretions from the body are vitiated or suppressed; but with a natural appetite and healthy secretions from the alimentary canal, tonic medicines will be found more beneficial to the compounder than to the patient." 32.

But Mr. Morgan goes on to observe, the local treatment is generally the most important, and will consist, in severe cases, viz. when the disease is attended with acute surrounding inflammation of the conjunctiva, and when the aphthæ are numerous,—in these cases it will consist in lessening action by topical bleeding, and by setting up counter-irritation in the neighbourhood of the disease. Leeches or cupping may be applied on the temple. Blisters or issues afterwards may be necessary, only, however, in very severe cases, for generally an astringent collyrium will be sufficient to excite the vessels of the part to altered and healthy action. Various forms will answer equally well.

Either of the following forumlæ will be found useful:—

℞.—Liq. plumb. subacet. ℥ vj.
Aq. fontan. ʒxiv.
Liq. Opii sedativ. vel Vini Opii, ʒij.
M.

℞.—Argent. Nit. vel Zinci Sulph. vel Cupri Sulphat. gr. ij.
Aq. Fontan. ʒx.
Vini Opii, ʒij.
M.

The Vinum Opii or Liquor Opii Sedativus undiluted, are also beneficial as collyria, more particularly in chronic cases.

The salts of lead are generally open to objection in cases of impending or actual ulceration. The lead is precipitated on the ulcerated surface, and may either injure by its adhesion, or, what is more probable, not accelerate reparation.

6. *Variolous Inflammation of the Conjunctiva.*—The observations on this head are so sensible, so much to the point, and so likely to be useful in every-day practice, that we will not allow them to slip by. Mr. Morgan describes Variolous Ophthalmia under two heads:—first, as it affects the conjunctiva of the lids only; and secondly, as to the consequences which follow the extension of the eruptive disease over the whole surface of the membrane.

a. In watching a case of small-pox, we observe, remarks Mr. Morgan, that during the eruptive stage the lids are swollen and closed, and in a short time matter exudes from behind them, and becomes encrusted on the palpebræ and eyelids, agglutinating the lids and perfectly sealing the aperture between them. This swelling of the part arises from the formation of pustules on the subjacent conjunctiva. the surrounding tissues becoming inflamed as the eruption is becoming fully matured, and the purulent effusion, which occasions, by its incrustation, adhesion, and closure of the palpebræ, is poured from the suppurating surfaces of the broken pustules beneath. When agglutination is complete, the matter no longer finding an outlet for escape, is, together with the lachrymal secretions, which now increase in quantity, confined between the lids and the globe, where, until proper measures are taken to evacuate and ensure a free and constant outlet for the morbid discharge, it must, of course, occasion and keep up continued irritation over its enclosing surface of inflamed mucous membrane. Additional suffering to the patient is necessarily the consequence of such a condition of the part. The symptoms complained of are sense of fulness, smarting pain, and burning heat, each increased by moving the globe in the orbit, or attempting to separate the lids. If these symptoms only, combined with the external indications which have been alluded to, are the most severe and prominent features of the complaint, and more particularly if it is found that the commencement and progress of variolus disease in the membrane hidden from view, is apparently keeping pace with that which is distinguishable in other mucous membranes, and on the surface of the skin—if we can see pure pus only discharging from the eyelids during the progress of the disease, and the swelling of the lids beginning to subside, with a diminished purulent secretion issuing between them, as a change concomitant with the alterations which take place in the pustules on the surface of the body, indicating the decline of the eruptive diseases,—then, even before the lids can be separated, we may generally anticipate a favorable result, for general and perfect acute Variolus Ophthalmia is distinguished by far more severe suffering.

As the complaint is subsiding, the swelling gradually diminishes, and in a short time the lids can be again separated, and the globe of the eye distinctly seen. It will then be found, that if those symptoms only have been present, which have been mentioned, and if the disease in the eye has kept pace with

that on the skin in its progress and convalescence under such circumstances, it will be found, that if the cornea has escaped, recovery will follow, without damage to the sight. A trace, however, of previous disease will be sometimes left, for the eyelids in the situation of the former pustules are sometimes disfigured by cicatrices, producing an uneven edge of the tarsus, which may remain for the rest of life. The cilia in many cases fall out, and are seldom restored. Trichiasis, or inversion of the eyelashes is also a frequent consequence of variolous inflammation of the tarsal conjunctiva.

The treatment, though simple, is far from inefficient or unnecessary.—The object will be to prevent the occurrence of any increase of irritation in the inflamed mucous membrane, from the confinement of increased lachrymal secretion and purulent effusion behind the agglutinated and closed eyelids. This will be accomplished by frequent tepid ablutions of water or milk and water. Mr. Morgan has generally found the following collyrium, injected warm between the lids, extremely useful and grateful to the patient:—

℞—Aq. Ros. ʒviiss.
Liq. plumb. subacet. ♏ xx.
Liq. Opii. sedativ. ʒij.
M.

This, of course, can only be used after the incrustations have been removed, and a free passage established for the escape of the morbid secretions and injection of collyria. The removal of incrustations from time to time is a point of great importance. Considerable relief is often afforded by puncturing the pustules of the affected parts.

b. "Now, when instead of affecting the lids only, the pustular eruption extends over the sclerotic and corneal conjunctiva, the disease becomes dangerous in the extreme. We have in addition to the formation of pustules, an acute inflammation of the whole membrane, and this general and pustular inflammation constitutes acute Variolous Ophtalmia.

You will recollect that the swollen state of the lids will quite prevent you from ascertaining whether the lids only, or the globe also have become affected. You will therefore ascertain the existence of acute Variolous Ophthalmia by the following symptoms:—Excessive lachrymal discharge, intolerance of light, even through the lids, pain on moving the globe in the orbit, continued pain, and sensation of sand or gravel between the lids. If you observe a bloody, greenish, offensive discharge, you may be sure the cornea is sloughing. These symptoms, then indicating general and pustular inflammation of the external tunics, will lead you to anticipate the most serious possible consequences.—The cause of danger in these cases must be obvious to you, when you consider that the disorder, as it affects the cornea, is precisely the same as when affecting the skin. In both cases, therefore, we have a small spot in which suppurative inflammation is set up, viz. a pustule. Ulceration follows, and sometimes sloughing; and wherever a pustule of small-pox forms on the transparent cornea, on that spot opacity to a greater or less extent will be produced by the cicatrisation of the consequent ulcer. If, therefore, a pustule be formed in the axis of vision, the functions of the organ will often be permanently disturbed or destroyed. If a small ulcer only be formed, and consequently a small spot of opacity be left, you will generally find that the sense of sight will be but little impaired. If a large superficial ulcer be formed by the pustules of confluent small-pox, and that ulcer leave behind it a cicatrix opposite

to the pupil, the loss of sight is inevitable. If the disease be raging in its most virulent form, the sloughing process will form a large opening through the cornea, and allow the humours to escape. The globe in these cases will collapse, and, of course, the functions of the organ will be destroyed. If only a small ulcerated opening be produced, you will find that instead of a general evacuation of the humours, the aqueous only will escape, the iris will be pushed through the aperture, and thus prolapsus of the iris will be the consequence. If, again, the opening through the ulcerated cornea be too minute to admit the passage of the iris, it is found that the iris, in consequence of the escape of the aqueous humour, is pushed against the ulcerated aperture in the cornea, to which it adheres without protruding; thus producing an alteration in the relative situation of the membrane, which is called Synechia Anterior.

Sometimes the layers of the cornea, having been thinned by superficial ulceration, give way, bulge out, and thus form a permanently opaque projection, which is known by the term of Staphyloma." 40.

On the treatment, there is not, unfortunately, a great deal to be either said or done. In small-pox, extreme depletion can be seldom ventured on.—But Mr. Morgan would seem to think such extreme depletion, à priori, called for by this species of ophthalmia. In the most acute forms of the complaint, if the constitution will bear it, no time should be lost in endeavouring to check the progress of the disease by general bleeding—local bleeding—mercurial purgatives—warm ablutions, to prevent agglutination,—placing the patient in a well ventilated room, excluded from light. But if such active measures are forbidden, local bleeding and tepid ablution must constitute the full stretch of our tether. Mr. Morgan gives a parting caution;—Do not, he says, mistake the common effects of small-pox on the lids only for acute Variolous Ophthalmia. Do not bleed, either generally or locally, when the lids are only swollen and glued together, for this is the effect of pustular disease on the conjunctiva adjacent to the edges of the cilia; but when, in addition to this swelling and agglutination, you find continued pain—intolerance through the lids—profuse lachrymation—sensation of sand between the lids—and excruciating pain on moving the globe within the orbit,—then rest assured that by depletion only the organ can be saved, for such are the symptoms of suppurative and ulcerative inflammation of the cornea, and of acute inflammation of other tunics. Thus your constitutional treatment in Variolous Ophthalmia must depend, not upon the urgency of the local symptoms, but the effect which the disease in other parts has made upon the system generally.

c. Mr. Morgan goes on to paint the secondary pustular ophthalmia, which occurs after the lapse of two or three weeks, when the small-pox pustules on the skin have formed incrustations, which are falling or have fallen off. Danger may seem to have departed, the medical practitioner may be off his guard, when the conjunctiva of the globe is again invaded with the pustular eruption.

At this period, however, the disease in the eye will be of a much milder form, and will be characterised by the following symptoms. As the lids are not so much swollen, we can now see the cornea, the pustule on which will first show itself in the form of a small circumscribed opaque spot, surrounded by a hazy zone. We next find that the opaque spot increases in size, and forms in its centre a yellow speck. This central yellow speck or spot increases to form a perfect pustule.

If it should happen that several pustules form on the cornea at the same time, it will sometimes be difficult to distinguish the opaque spots separately; for their surrounding zones of hazy cornea will become mingled together to form a nebulous or clouded cornea. In these cases a minute examination will be necessary, to ascertain the exact nature of the disease. The other symptoms will be, as in the former case, redness of the conjunctiva of the sclerotic and lids—pain and intolerance of light. The disease, therefore, is the same in kind, but less in degree. Suppuration and ulceration are the most common consequences of the disease in this stage; the sloughing process rarely supervenes.

Mr. Morgan's plan of treatment is the same as before:—active and continued general depletion, which the patient can generally bear after the decline of the eruptive fever—local depletion—tepid washes—and a shaded, cool, and well aired apartment.

It does appear to us that Mr. Morgan is rather timid in the use of stimulants. We cannot coincide with him in his almost unreserved employment of depletion. When ulceration actually exists, we do think that depletion is often injurious, rarely very beneficial. The nitrate of silver in solution, in ointment, or in substance, is then most commonly of signal service. Such, at least, is the result of our observation, and we cannot refrain from placing it in juxta-position with Mr. Morgan's, in order that our readers may compare and judge for themselves.

7. *Purulent Ophthalmia of Infants.*—Mr. Morgan dwells on the *best method of examining the eye of an infant.* He has already given us some hints on the way of going to work with an adult. The methods differ in the two cases.

"Now, the mode of separating the lids of a child, the subject of this disease, and the mode of performing the same operation in other diseases of the organ, and on the adult subject are totally different.

In many other diseases it is desirable that the inflammation of the conjunctiva should not be increased by any violence done to the part in an attempt to open the eye by artificial means, and therefore I pointed out the best mode of doing so in a former lecture. But in Purulent Ophthalmia of infants it will be quite impossible to effect your purpose in the way I then recommended. The conjunctiva is swollen and villous. You find chemosis of lids, and a cornea hid by protruding chemosis of membrane.

The best mode of exposing the globe will be by separating the lids quickly during the time the child is asleep; but it does not always happen that we are able to choose such a time for the operation, therefore another course of proceeding must be adopted. It consists in pressing the margins of the tarsi backwards over the globe, by placing the finger-nails against their anterior edges. No force is to be used—no pressure *downwards*—the finger-nails are not to be *hooked* under the lids, but placed against the anterior edges of the lids—which are to be separated by gentle pressure—the introduction of probes between the lids may sometimes be required to effect your object, or the use of a speculum oculi, if from the tumid state of the part, or the irritability of the child, or any other cause, greater force is required than can be exerted by the finger only; often, however, we must rest satisfied in our diagnosis by the presence of other symptoms, viz. with the degree of tumefaction in the lids, and the character of the purulent discharge issuing from beneath them." 49.

We see nothing to claim attention in Mr. Morgan's treatment of this ophthalmia. But he offers a remark or two in reference to prognosis, which may not be altogether useless.

If, he says, you observe a bloody ichorous offensive discharge issuing from the eyelids, you may, without further inquiry, pronounce at once that the functions of the organ will be either seriously disturbed, or completely and permanently destroyed. That ichorous sanious discharge is produced in these cases by one cause, and by one cause only, viz. slough of cornea; and a sloughing of any large portion of the cornea in Purulent Ophthalmia of infants may be considered as synonymous with a total destruction of the organ. If, before you separate the lids, you perceive a deep yellow or a greenish yellow discharge, you will know that very acute inflammation is existing in the part. If the discharge be whitish, that white appearance will indicate a less degree of inflammation; and, if not preceded by a yellow effusion, you will generally find that the case will terminate favourably. But the only satisfactory evidence upon which you can found a correct prognosis will be afforded by an examination of the globe of the eye itself. When the cornea is clear and transparent, you may at once assure the parents that the organ is, in all probability, safe. The disease is then usually completely under your control. Whatever may be the condition of the sclerotic or palpebral conjunctiva, if the cornea is free from disease, the sight may be almost always restored. A hazy appearance of the cornea is not always an indication of an unfavourable result, for if the semi-transparent dulness of the membrane be only superficial—if merely confined to the conjunctiva of the cornea and its anterior layers—that haze will disappear under proper treatment. If the cornea should be perfectly opaque, ulceration or slough, to a greater or less extent, will follow, and consequently the eye will necessarily be damaged.

8. *Treatment of Strumous Ophthalmia.*—We may observe that strumous ophthalmia is that form which commences with extreme sensibility of the retina to light, constituting intolerance; redness and inflammation of the conjunctiva, with its consequences, follow. These phenomena may coincide with the ordinary marks of the scrofulous diathesis, or the latter may be imperfectly exhibited, nay absent. The complaint, as most surgeons have found to their cost, is frequently troublesome and obstinate to the last degree. We subjoin Mr. Morgan's plan of treatment.

Suppose a case in its early stage, when irritability of the retina is yet unaccompanied by continued redness of the conjunctiva. Our first object must be to clear the alimentary canal of its contents by purgatives. Some preparation of mercury, combined with a more active aperient, will be found the most useful medicine to begin with. Our next object will be to lessen irritability, which is dependent upon constitutional weakness, by a tonic plan of treatment; and at the same time to promote the healthy condition of the different secreting organs; for, in this complaint, as in Struma affecting other parts, you will meet with diminished power in the system, increased nervous irritability, and vitiated or suppressed secretions. When continued inflammation of the conjunctiva *does* exist, leeches may be necessary. But they should be sparingly used, and blisters, if possible, avoided. A warm bath is often serviceable, and in very obstinate cases the exhibition of small

doses of opium, antimony, and mercury in combination given every night may be required: these, however, are usually cases, where we find a hazy cornea, and minute red vessels overshooting its margin, or covering its whole surface; here, the safety of the organ is threatened, unless the system is made to feel the influence of mercurial action, and, now and then, the establishment of continued nausea must be had recourse to, to lessen the surrounding inflammatory action.

We have found more benefit from leeches, than Mr. Morgan would seem to have observed. A single leech applied to the temples, every or every other night, has often seemed to us extremely beneficial. In this, as in other instances, Mr. Morgan appears timid in the use of slimulating applications.

9. *Pterygium Pingue.*—Occasionally, writes Mr. Morgan, a spurious form of Pterygium occurs in old people. This consists in the formation of small yellow steatomatous granules, which are situated beneath the conjunctiva. The disease has been called Pterygium Pingue. It is totally distinct from the other complaint, and occurs almost always in elderly persons, never requiring removal or medical treatment. There is one distinguishing mark, which separates this from true pterygium. The latter is always of a triangular or pyramidal form; Pterygium pingue is circular or irregular.

10. *Conjunctiva of the Cornea proved to exist by Chemosis.*

"In some cases of Chemosis an appearance presents itself, which must be equally interesting to the anatomist and the pathologist; as it affords a perfect proof to the former, of the separate existence of a structure, which perhaps he might not he able by dissection to detect, and to the latter a guide for the treatment of his patient. I mean the appearance of Chemosis of the Corneal Conjunctiva, by which any attempts at argument intended to prove, from the apparent impossibility of separating the parts in the healthy subject, that the conjunctiva does not form an anterior covering to the cornea, are at once set at rest." 102.

11. *Precautions to be observed by applying Nitrate of Silver to the Eyelids.*—In making use, says our author, of the argenti nitras, or any other astringent, whether fluid, solid or unctuous, to a diseased eyelid; first evert that lid, holding it well away from the globe; dry it by passing a piece of linen over its conjunctival surface, and be ready the moment you have dried it to apply your astringent, after having done which, immediately dry it again, and apply some mild unirritating ointment, wipe this off, and apply it once more, and you will then be almost certain that whatever may have been applied to the conjunctiva of the lid will not reach that of the globe, the object of preventing which must be obvious to you, when you consider the effect your strong local applications would otherwise produce upon a continuous surface of a healthy membrane.

12. *Distinctions between Natural Colouration of the Iris and Iritis.*—Every body knows that, under the influence of inflammation, the iris changes in colour. But, as Mr. Morgan succinctly puts it, it occasionally happens that in the same individual the iris is naturally of a different colour in each eye; that in one the iris is blue; in the other green. Sometimes an iris will be

half green and half blue; in which case no mistake can be made, as this appearance is never produced by inflammation; but in those who possess two irides of different colours, it may occasionally happen that common acute inflammation of the conjunctiva might be mistaken for a case of pure iritis; in both you will have intolerance of light, pain, and an altered colour of the iris. Conjunctival inflammation is frequently combined with iritis, and the sclerotic zone of pink vessels will therefore in these cases be obscured or concealed beneath the tortuous vessels of the conjunctiva; so that an injected and vascular conjunctiva with a discoloured iris will be the diagnostic marks of the nature of the complaint. If it should ever become a matter of doubt whether under such circumstances the discoloured iris be the consequence of inflammation or of other causes, you will at once be able to determine by the condition of the pupil and the comparative brilliancy of the tunic; the colour may deceive you, the appearance of increased vascularity may lead you into error, but loss of brilliancy and a contracted or an irregular pupil which dilates and contracts slowly, are marks of distinction which are characteristic of iritis and iritis only. By these symptoms, then, you will always be able to determine whether the iris is the seat of disease in those patients in whom the difference of colour might lead you into error.

13. *Diagnostic Marks of Syphilitic Iritis.*—We are quite sure that iritis is seldom a *pure* secondary symptom. It usually occurs where mercury has been employed, sometimes where it has been grossly abused. The writers on ophthalmic surgery, lay down certain criteria of syphilitic iritis. The following are the characters insisted on by Mr. Morgan:—

Syphilitic Iritis presents precisely the same appearance under all circumstances; whether it accompanies the papular eruption or the elevated scab of rupia prominens, or whether it be found in combination with the squamous eruption, or uncombined with any cutaneous affection whatever; under all these circumstances the appearances will be as follows:—

The first symptom, as in common iritis, will be pain and intolerance of light; generally exacerbations of pain at night, and comparative ease during the day, and the pupil contracted and thickened, and generally drawn upwards and towards the inner canthus. The conjunctival vessels are generally unaffected, but the zone of sclerotic vessels around the cornea is always formed from the commencement of the disease. The colour of this zone in Syphilitic Iritis, is highly characteristic of the nature of the disease; it is not pink, but cinnamon or rusty brown-red; this is a good diagnostic mark of distinction between common iritis and Syphilitic Iritis.

In a short time patches of lymph are deposited on the anterior surface of the iris, and adhesions are formed at a very early period between the pupil and the capsule of the lens. The adhesive matter which is poured out, is sometimes, in these cases, of a reddish hue, and the effusion is more rapid and abundant than in common iritis, consequently the adhesions of the pupil are more extensive. Mr. Morgan adds, that the nocturnal aggravation of pain in the orbit, and in the globe, is more frequent in the syphilitic than in any other form of iritis. But, after all, the great diagnostic mark is the existence, antecedently or concurrently, of other venereal symptoms.

14. *Treatment of Arthritic Iritis.*—We subjoin Mr. Morgan's directions, without pledging ourselves to entire concurrence with him.

In pure arthritic iritis, mercury is seldom necessary, sometimes hurtful.

"The Remedies for Arithritic Iritis are perfectly inert in both common and syphilitic inflammation of the tunic. Those remedies are as follows:—General and active antiphlogistic measures are hardly ever required. If, however, there be pain extremely severe, and febrile excitement, it may be necessary to abstract blood from the arm; but generally, local bleeding by cupping on the temple and the free application of leeches will prove sufficient. Counter-irritation effected by the application of blisters, will also be found highly useful.

If intolerance of light is severe, the exclusion of it, by a green shade or veil, will of course be necessary; tepid fomentations are more useful than the application of cold. The medicines which you exhibit in the first instance will be given with a view of acting freely upon the bowels, and thus clearing the alimentary canal of its contents.

You afterwards administer those remedies which are found to be beneficial in cases of acute or chronic rheumatism in other parts. You are aware, I suppose, that in some cases of rheumatism, the exhibition of bark has been found useful. This medicine is an exceedingly good one in rheumatic iritis, particularly when combined with alkali. The following will be found a useful formula:—

℞.—Pulv. Cinchon. gr. v.
Sodæ Carb. ℈j.
Fiat pulv. ter in die sumend.

In all cases, restore or insure healthy and natural secretions by antimonials and small doses of mercury. Use mercury in these cases, not to act as a poison by affecting the salivary system, but as an alterative to increase and improve the system generally. Whilst you are giving these medicines, the patient is to avoid all stimulants in diet, such as wine, malt liquor and animal food.

Now it will occasionally happen, that a chronic form of inflammation will remain after the more urgent symptoms have subsided, and in some few instances it may be necessary to affect the system with mercury; but these are not pure cases of Arthritic Iritis,—they are cases in which common chronic inflammation supervenes upon the other disease. The appearance of the eye partakes more of the character of the common iritis; the iris remains dull, the zone approaches the cornea, and there is pain in the globe. In such mixed cases mercury may be necessary." 150.

15. *Principles which should regulate the Administration of Mercury.*—We quote the following observations because we think them exceedingly just, and because we also think that the error they deprecate is one too frequently committed.

"When we give mercury in ophthalmic, as well as in other diseases, with a view of what is called affecting the system, we are too much in the habit of estimating the extent of its operation by the presence of mercurial fætor in the breath, inflamed and spongy gums, or profuse salivary secretion. It is too much the custom to push on the remedy until one or other of these three signs of its action shall be manifested.

It is true that they are proofs of its specific operation on the body; but it is equally true that the system may be affected without any of these symptoms; and that consequently a powerful operation upon disease may be produced without salivation.

In many venereal affections which would yield to the sparing and judicious

use of mercury, ptyalism will increase the disorder, so it is in inflammation of the sclerotic. We sometimes find that the disease is appearing in its most severe form when the system is saturated with mercury, and disappearing under your remedies as ptyalism is subsiding; yet in many cases the future exhibition of the remedy, in small doses, will be absolutely necessary for the permanent cure of the disease.

Whilst you are giving these smaller doses, recollect that you are to be guided by the two following rules:—

If the disease is yielding, although no red line is to be seen on the gums, you are not to increase your dose of mercury, with the view of affecting the salivary system. The effect of the remedy upon the disease is a sufficient proof that the system is sufficiently affected.

If, on the other hand, the disease is stationary, although the gums are affected, and salivation is commencing, you are not to push your remedy still further, in the hope of being able to control the morbid condition of the sclerotic, by drenching your patient with mercurials. The slightest indication of a mercurial action upon the salivary organs, will assure you that you have gone far enough. If you excite ptyalism, you will increase the original disease, and lay the foundation for others of the most serious nature. When the disorder is manifestly under the influence of your treatment, never think of trying to produce inflamed gums, but give mercury as sparingly as possible." 156.

All this seems to us to be so judicious, so conformable with reason, and so consistent with fact, that we entreat the attention of our readers to it. Nothing can be more erroneous than the idea that salivation is requisite as a test of mercurial action. If the disease is yielding, what would any one have more? If it is not yielding, salivation may be beneficial or injurious, according to the nature of the circumstances and the case. In one instance, the amount of constitutional affection implied by salivation may be highly serviceable—in another absolutely the reverse.

The rule we conceive to be—to look on salivation as an evil in fact, and an exception in practice. It should not be sought as a matter of course, but only under the pressure of particular indications.

It may be asked, what criterion we possess of sufficiency of dose or of aggregate quantity, in the exhibition of mercury, if salivation is not to be solicited. The answer is obvious. On the one hand the diminution of the disorder or disease—on the other, the employment of that amount of the medicine which experience tells us to be usually enough—these are the safest, and really most practical standards.

16. *Treatment of Obstructed Nasal Duct.*

"There are two modes of dilating a strictured nasal duct without making a wound in the face; the first recommended, and I believe, first practised by Mr. Travers, consists in passing a punctum probe through the lachrymal duct into the sac, carrying it, after it has fairly entered that part, almost directly downwards into the nose, and thus clearing a small channel for the passage of the fluid which collects above. Mr. Travers recommends injections in these cases, made through the puncta by means of the introduction of Anel's finely-pointed syringe tubes; my practice consists in passing a curved probe *upwards* through the duct, an operation which, although it may require a little practice to perform it with facility, is, so far as my experience has gone, most satisfactory in its result. No force must be used in introducing the instrument, the point of which

having been carefully fixed in the lower opening of the duct, after being carried under the inferior turbinated bone, is to be gently pushed upwards into the sac, through the stricture, by depressing the handle of the probe or sound, keeping the convex part next to the handle upwards; then after having established a free passage through the canal from below, I generally inject tepid water from day to day, by means of a small catheter, introduced in the same manner as the sound, and attached to an Anel's syringe. By following this plan, suppuration may sometimes be prevented, but at all events a fistulous opening in the face is prevented if the disease is confined to the membrane, (although an abscess may have formed in the sac,) in consequence of the prevention of any accumulation there, from frequent injections." 220.

Mr. Morgan *never* passes a style.

Most surgeons, we believe, will agree that the passing of a probe from the punctum (necessarily a very small one) is, in the great majority of cases, useless—that the passing of a probe from the nose is often serviceable, nay effectual—but that the total abandonment of the style is injudicious.

17. *Treatment of Entropeon*.—When of long standing, the disease requires a surgical operation. This, in cases where the inversion is not very great, consists in the division of the tarsal cartilage, at the outer canthus, keeping the divided parts afterwards separate during the healing process; but, in the severest chronic forms of the complaint, to insure a permanent and radical cure, either the whole of the cartilage must be excised, or a flap made by a double vertical section through the part, which is to be kept everted long enough to prevent union by adhesion, by means of threads passed through the edges of the flap, and attached by means of strips of adhesive plaister to the adjacent integuments. This operation was introduced by Mr. Guthrie.

"I have succeeded," adds our author, in some cases remarkably well with Mr. Guthrie's operation, but in others have failed, and been obliged to excise the whole cartilage afterwards, which I now generally do, in the most aggravated forms of the disease, when of long continuance.

The removal of a portion of the integument from the lid, and bringing afterwards the divided edges of the wound together, so as to draw the cartilage into its natural situation, by thus tightening the skin of the lid, has been recommended; but I have generally found the advantage which is derived from this plan of treatment only temporary, and for the most part the same may be said of the application of caustic to the integument covering the lid, made with a view of forming a cicatrix, and consequently of producing contraction of the surrounding soft parts." 214.

We have cured two very obstinate cases by the removal of a large quantity of skin from the palpebræ, but we have, also, like Mr. Morgan, seen this operation fail.

18. *Treatment of Ectropeon*.—The eversion is usually produced, writes Mr. Morgan, by cicatrices in surrounding parts, and at first it would appear that the removal of the cicatrised integument, which immediately afterwards allows the lid to be brought up in most cases, would easily effect a permanent cure; but it is found that subsequent contraction takes place in almost every case, and something more, therefore, is required; the removal, how-

ever, of the cicatrix and adhesions to deep-seated parts, must always be the first step in the operation for a perfect and permanent cure, which may be effected in two ways, first, by cutting out a central triangular portion of cartilage, the base of the triangle being at the edge of the lid, bringing the parts together afterwards by suture, and preventing the union of the wound, occasioned by the removal of the cicatrix by adhesion, so as to allow the adhesive process in the cut edges of the cartilage to go on undisturbed by a subsequent tendency to contraction in the parts closed over, and covering the situation of the former cicatrix. This operation will be applicable only where the eversion is slight; but in the worst cases where eversion is excessive, in addition to the removal of the cicatrix, another means of remedy must be had recourse to, which may either be combined with the excision of a triangular portion of cartilage or not, according to the condition of the part; it will, however, generally be necessary when the cartilage is permanently altered in its shape by long eversion. The operation necessary to accomplish a perfect cure consists in patching a portion of continuous integument upon the gaping surface of cellular membrane, exposed by the removal of the cicatrix.

He adds, as the result of his own experience:—

"By this Taliacotian operation, I have not to my recollection, failed in curing the deformity in any remediable case. The detached portion which you transpose is to be confined in its new situation by small metallic (platinum) sutures, and a light bread-and-water poultice used as a dressing. It rarely happens that more than one strip of adhesive plaister under the poultice is required to assist in keeping the parts in its place, if the sutures are properly applied; and sometimes a poultice will be all the dressing necessary." 216.

It must obviously be a severe case, which requires so severe a remedy.

We have picked out a number of practical hints from this volume. Its pretensions are not great, but it is well calculated to effect the objects of its author. The latter bears a high character with his pupils, and these lectures will probably be favourably received by the profession.

MEDICAL NOTES AND REFLECTIONS. By *Henry Holland*, M. D. &c. &c. 8vo. pp. 628. Longmans, 1839.

IT would be well for medical science, if some of those who have devoted volumes to fine-spun theories and speculations, had simply recorded the results of their observations and reflections during an active practice of twenty or thirty years. Under this impression we opened the volume before us; and, although we cannot say that we have been entirely free from disappointment on perusing Dr. Holland's book, yet we are sure that it will prove an acceptable present to the profession. The author, during twenty years' practice in this metropolis, has been in the habit of making notes of interesting cases, and of appending to them such reflections as occurred to his mind on these and other occasions. The contents are therefore very miscellaneous, and we shall notice them separately or in classes, Our first paper shall be THERAPEUTICAL, and it will embrace the third, fourth, eighth, ninth, tenth, sixteenth, twentieth, twenty-first, twenty-sixth, thirty-second, and thirty-third Chapters.

1. BLEEDING IN AFFECTIONS OF THE BRAIN.

We rejoice in finding the opinion of so experienced a physician as Dr. Holland delivered so strongly against the indiscriminate use of the lancet in these cases. Although much improvement in this point of practice has resulted from the valuable observations of Dr. M. Hall, Dr. Gooch, and others, yet, whether it arise from the difficulties of the diagnosis, from the deception created by the *temporary* benefit so often following, or from the necessity which many medical men seem to consider themselves to be under, of always employing some visibly active procedure; certain it is, that with the great bulk of the profession, abstraction of blood constitutes not only the chief, but sole means of relieving cerebral affections. In our schools the subject of blood-letting is often treated too careslessly; few teachers dwell sufficiently upon the necessity of care and discrimination in expending the invaluable fluid; while others, indeed, recommend free depletion, without much troubling their hearers with restrictions of any kind. It is too often forgotten, not only that there is a large class of cases in which such proceeding is absolutely injurious and inappropriate. but also, that in the cases in which depletion is allowed by all to be required, it is oftentimes carried to a most improper extent, producing a long train of nervous symptoms, or laying the foundation of subsequent serious chronic disease—sequelæ not always thought of when the case is exhibited to the admiring class, as an example of what (properly termed) *bold* treatment will effect. Thus it happens, that, one of the first errors the young practitioner has to unlearn, often is, a too unlimited confidence in the powers of the lancet. He finds, though too often from some unhappy results, that, care, and discrimination are required to prevent its being the instrument of mischief in place of good. To him words like the present are always useful and acceptable guides.

Many of our readers will readily acknowledge the truth of the following passage.

"Is not depletion by bleeding a practice still too general and indiscriminate in affections of the brain, and especially in the different forms of paralysis? I believe that the soundest medical experience will warrant this opinion. The vague conception that all these disorders depend upon some inflammation or pressure, which it is needful to remove, too much pervades and directs the practice in them: and, if the seizure be one of sudden kind, this method of treatment is often pursued with an urgent and dangerous activity. Little heed is taken of the many cases where the symptoms depend upon irritation alone,—or on loss of nervous power,—or on deficient circulation of the blood within the brain,—or on altered qualities of this blood,—or, it may be, on morbid changes in the nervous substance itself. Theory might suggest that, in some of these various cases, the loss of blood leads to mischief.—Experence undoubtedly proves it; and there is cause to believe that this mischief, though abated of late years, is still neither infrequent nor small in amount.

It is certain indeed that there is a state of brain, best perhaps represented to us in its general effects of diminished nervous power, which tends to produce sometimes spasmodic seizures, sometimes delirious or maniacal affections, sometimes palsy of different parts of the body—these effects being in no wise obviated by depletion, but rather increased by all such means; while they are relieved by remedies which tend to excite the energy of the sensorium, and to augment the general power." 39.

Dr. Holland descrbes a state of the brain in which depletion, from its debilitating effects on the nervous system, must be employed with especial care. It is nearly allied to the state of deficient or altered nervous energy. Probably, the cerebral mass is affected in an analogous manner (although by causes of slow and gradual operation,) to what it was in the experiments of Sir A. Cooper, who produced paralytic and spasmodic affections, by depriving the brain of blood by the ligature of the two vertebrals. However produced, it may manifest itself in every degree, from mere changes in mind and animal spirits, to the production of convulsion and paralysis. Its nature seems much to resemble the changes produced in the brain by old age. A similar state results from anxiety and distress of mind, as also from overstrained intellectual labour.

He next passes in review some of the symptoms usually deemed as justifying, or calling for the use of the lancet, but which sometimes require very opposite means. Thus *coma*, although usually supposed to be dependent on pressure, to be relieved by bleeding, is often a symptom of extreme debility—sometimes expressly induced by depletion. It is a state more nearly allied in such cases to syncope than to pressure. Dr. H. is certain, that he has seen cases where the tendency to coma might give strong presumption of pressure, in which large bleeding has induced paralytic attacks, which might otherwise have been spared.

Vertigo. He justly observes there are cases, "and these, as I think, of frequent occurrence, where vertigo is the effect of causes wholly remote from fullness or overaction: being in fact a step towards syncope, and a proof of the exhaustion of the nervous power."

His remarks on bleeding in *Paralysis* are very judicious. Allowing that it may be susceptible of relief, by emptying the vessels of the head, where

it has arisen from extravasation or other cause of pressure; yet, he observes, it frequently results from an instant shock to a portion of the brain or spinal marrow; the shock may be of momentary duration, its effects lasting upon the nervous system, while the physical changes are little known to us; although it is probable that the nervous substance itself is often previously affected. The practice of bleeding immediately after a stroke of palsy is often reprehensible. "The risk, I believe, will generally be less from waiting a certain time,—to observe the effect of what has occurred upon the circulation, the breathing, and the sensibility,—than from hastily taking away blood, at the moment of a great shock to the brain, and before we can rightly appreciate its consequences. This effect upon the greater functions of life gives us, in fact, the best information we can have in guidance of further practice. But this we forfeit in great part, by the disturbance any large depletion makes in the system, and especially upon the organs upon which these functions depend." Even where the fitness is undoubted of bleeding after one paralytic attack for the prevention of another, Dr. H. prefers, as the safest practice, small and repeated bleedings, to copious immediate depletion.

He thus concludes the subject—

"These remarks, and the cautions they suggest, are familiar to many, and to such needless. But I feel assured, from what I have seen, that they ought to be carried further into general practice. The use of the lancet is easy, and gives a show of activity in the practitioner at moments where there appears peculiar need of this promptitude. Current opinions and prejudices are wholly on the side of bleeding; and the complexity and danger of the cases tend to obscure the result of the treatment pursued. The physician needs all his firmness to decline a practice thus called for; where the event is so doubtful and where death may be charged upon his presumed febleness or neglect." 47.

He appends some cursory remarks upon some other points connected with the treatment of head-affections.

The *application of cold to the head:* he cautions us against its indiscriminate use, and careless application; we know its effects vary according to the quantity and mode of application, and as some headaches are decidedly aggravated by it, although others are relieved by it, it becomes a question, whether all the other more serious affections of the brain are equally relieved by its use, as are those of an inflammatory character. "Unfortunately these are cases (as in apoplexy, &c.) in which generally patients can render least aid. Sometimes they are manifestly uneasy under the application of cold. Their feeling, whenever it can be ascertained, is better than any other test."

The *raised position of the head* is too often indiscriminately insisted upon, for, although it is frequently a most useful precaution, yet at other times the good which results is no equivalent for the irksomeness it causes; while again, in cases of diminished energy of the brain, it is positively improper. "Headache moreover in some instances is brought on, or much augmented, by the upright posture, and subsides when this is changed. In general we may gather from observation which position of the head is best—by the colour of the face, by the state of the breathing, and by the action of the heart or other functions, if the patient be unable to express his own sensations.

Perhaps altogether the respiration is the most certain test we can employ in the absence of the latter."

"*Bleeding by leeches from the hæmorrhoidal vessels* might be much more frequently employed than it is in affections of the brain, as well as in those of the spinal cord. I know no mode in which a given quantity of blood can be removed with equal effect in the cases where this is required."

II. OBSERVATIONS ON VARIOUS MEDICINES.

Under this head we propose to collect some of the very useful observations upon the administration of several medicines, which are contained in different parts of the work.

1. But first, a few extracts from the chapter on *Methods of Prescription.* Dr. Holland justly remarks, that although we have abandoned the complex formulæ of former times, yet "the error is still frequent of aiming at a greater number of objects than can be reached at once, or by any single combination of remedies; thereby forfeiting the good to be derived from simpler and more explicit means. Secondary and subordinate symptoms are apt to usurp a place in prescriptions, due to such only as are essential to the character and course of the malady. And it is not too much to affirm that the judgment of the medical man upon a disorder is often warped by the reflection of his own practice. He is apt to look at the symptoms through his own previous treatment of them, as well as through the false opinions of those around: and the trifling or casual symptom of one day gains undue weight the next, from its needless admission among the objects for which he has prescribed. All this is natural in itself, but undoubtedly a serious error in practice. In no way can it better be obviated than by carefully simplifying the character of prescriptions: and avoiding ambiguity, as far as possible, in the intention we assign to the several parts."

After adverting to the difficulty which exists in estimating the effects of the various elements of a prescription, he, adds—"the best general rule seems to be, to define in every case, as far as can be done, the main object of present treatment, —to make this the basis of prescription,—and to admit subordinately and under limitation, all such means as apply to collateral symptons. This rule ought especially to be kept in mind, when a new medicine, or new applications of an old one, are on a trial in our hands. Complexity here, especially that which arises from the admixture of new agents in the same prescription, disguises that which it most imports us to know, and which is always learned with difficulty amid the many conditions tending to obscure the effect. In adding to these the uncertainty of combination which is in itself in most cases an experiment, we wrap one doubt within another, and play false with every just principle of medical research."

Dr. Holland recommends the young practitioner to examine for symptoms by some certain rule or method, as tending to give exactitude to his own ideas of the case, and to his powers of communicating them to others: to avoid being betrayed into hasty diagnosis and prognosis, by which his subsequent practice might become embarrassed or negatived "from the desire

to redeem a wrong opinion thus given;" and to remember, that in prescribing for a patient, there are numerous circumstances beyond the mere diet and medicine, which call for the careful physician's attention.

He also considers it a good rule, in the treatment of disease, to examine how far *external remedies* are fitted to the case, before determining those for internal use; which enables us, not only to consider how far the desirable object of relieving the affection by the former can be realized, but also affords us due time for the attentive consideration of the latter.

2. *Sudorific Medicines.*—Dr. Holland lays down these positions in reference to sudorifics:—

"First, that it is more reasonable, as well as beneficial in practice, to have regard to the changes in the circulation producing diaphoresis than to the action of sweating itself. And, secondly, that the amount of perspiration is rarely a just measure of the good obtained: and, that to make this a primary object is likely to give a wrong and injurious bias to the treatment of disease." Upon the whole we think, that, perhaps, he speaks too disparagingly of this class of remedies, believing diaphoresis, as he does, as indicating rather an effect than a cause of change of the state of the disease. But we fully agree with him, that much of the improved practice of our days consists in having abandoned the heating and stimulating plans of treatment which had for their object to force perspiration.

Opium as a Diaphoretic.—"Of the various internal means for obtaining diaphoresis, I believe that opium, in one or other of its forms, is the most uniformly certain and beneficial. Its action, in conformity with the views just stated, may be considered to depend on its powers of allaying inordinate circulation, or other excitement of the system. This opinion is justified, as well by the other effects of opium as by the similar influence of various narcotics on the state of the skin.

I allude more especially to opium as a diaphoretic, because I believe that in our modern practice we too much neglect the various and beneficial resources afforded by this medicine. Its action in this way probably depends chiefly on its power of allaying excitement of the vascular system. Whatever be thought of Lind's recommendation of opium in the hot stage of ague, it is certain that in various states of fever and inflammatory disorder, where preceded by sufficient evacuations, no medicine can be more safely used as a sudorific, or with greater collateral advantages." 61.

3. *On the Use of Diluents.*—These are considered under three points of view. "1st. The mere mechanical effect of a quantity of liquid in diluting and washing away matters, excrementitious or noxious, from the alimentary canal." Dr. Holland speaks strongly in favour of the free use of *water* to produce this effect, in many states of the alimentary canal; when taken fasting, at an agreeable temperature, he has known it conduce more than any medicine, to the due performance of the functions of the alimentary canal, and especially where its secretions have become vitiated. In cases, in which an habitual excess of acid in the lower bowels is a source of distress, half a drachm of carb. sodæ, taken in a large quantity of water, will greatly relieve—being often much more useful, thus given, that when a smaller quantity of water is employed.

He also suggests, that we should make much more use of the surface of

the alimentary canal, as a means of conveying cold, than is customary.—"I have seen enough of the benefit from cold liquids freely given in the acute stages of gastric disorders, inflammatory and febrile, with express reference to the point of temperature, to justify a more frequent recourse to it in practice. This is a point where the feelings and desire of the patient may fairly be taken in guidance, and we can rarely go wrong in following them."

"2nd. Their influence in modifying certain morbid conditions of the blood." After reviewing the facts at present known, in reference to the absorption of fluids into the circulation, Dr. H. concludes, that our present knowledge will not justify us in prescribing diluents with the direct intention of altering the qualities or proportions of the blood; but that, whenever fluids are demanded by the sensations of the patient, they may be freely and fearlessly given. "Even in *diabetes*, I have never found any continued good from opposing the inordinate thirst of the patient, nor aggravation of what are the essential symptoms of the disorder, by assenting in full to this desire. The restraint as to liquids, to satisfy the thirst of malignant cholera, is still less justified by any reasonable principle or experience in practice. The thirst occurring as an ordinary symptom of all *fever*, is for the most part to be viewed as authority for its gratification. In the greater number of cases, more harm will arise from opposing it, than from any excess in the use of liquids to which it can lead."

"3dly. Their effect upon the various functions of secretion and excretion, and especially those of the kidneys and skin."

He considers that simple diluents, as water freely given, form our very best sudorifics, and that in many febrile diseases they should be more freely employed.

Also, in those dropsical affections in which it is the object to restore a due action of the kidneys, diluents are very useful, after the due evacuation of the bowels:—a preliminary essential to the due operation of all diuretics. He attributes to the effects, which as diluents they exert on the functions of the kidney and skin, the beneficial results which so often follow the free employment of the continental mineral waters.

4. *Abuse of Purgative Medicines.*—The author acknowledges there is considerable justice in the criticisms made by our continental brethren upon our employment of these. He denounces the idea, countenanced by too many medical men, that a daily evacuation is to be procured as necessary to health; seeing that the constitutions of individuals vary much in this particular. In *dyspepsia*, a long train of maladies often ensue, as the result of too frequent use of purgatives, increasing the torpor they were intended to relieve, and irritating other parts of the canal.

But while blaming the injudicious use of these medicines, Dr. Holland is a strong advocate for their efficient employment in appropriate cases, in which a degree of vigour "is sanctioned to an extent even beyond that to which it is carried in ordinary practice. For it is not paradoxical to affirm that the practitioner who deals too familiarly with these medicines, in all cases, is less likely to use them boldly and efficiently when the need is greatest. The accustomed habit is carried on to the particular instance, and due discrimination is wanting in both." Again, he thinks that, in the cases

in which purgatives are really required, the *dose* is often very injudiciously reduced; and, that a dose capable of speedy and powerful effect, exhibited at suitable intervals, is much preferable to small quantities repeated from day to day.

The cases calling for active purgation, are, especially, affections of the head, and of the organs connected with the portal system, certain dropsies, in which the kidneys refuse their office; or, where the body is disordered by certain morbid matters collected and circulated in the blood, as evidenced by the discharge of dark grumous stools, &c. &c. Although purging should generally be limited to the removal of actual disease, yet it may frequently be employed as a preventive of disorder. Thus, in those cases in which there is a tendency to form accumulations in the vascular system, and morbid deposits, great advantage will attend free purging at intervals, as may be seen in the gouty temperament.

"Nor can the need be doubted of aiding the natural action of the bowels in many cases where there is habitual costiveness, either from particular temperament or the casual condition of life. But I have already pointed out the great abuse by excess in this part of practice, and the importance of giving more scope than is usually done to the natural powers of the organs in relieving any such casualties. I advert to the subject again, as well to enforce this, as also to suggest the value in these cases of the direct combination of *tonics* with aperients; a form of prescription which might well be brought into more general use. In the greater number of instances of this kind, weakness in the proper action of the bowels is the cause of costiveness; and in seeking to remove the effect by means which act through irritation only, we do but add to the mischief. The tonic, conjoined with the aperient, enforces its action without weakening the organs. These in fact are the cases in which, if there be no irritation of the mucous membrane, bark will itself often act as a laxative. I have known many instances where calomel, colocynth, and gamboge, in large doses, have had little other effect than that of injurious irritation; but where a few drachms of infusion of senna, with decoction of bark, have been amply sufficient in producing the desired action.

This practice is of more especial value in those languid and strumous habits in which strength and good digestion are so carefully to be maintained; and where an irritation, habitually repeated, often becomes the source of active and permanent disease." 108.

5. *Use of Colchicum in Gout.*—We have not space to pursue the author's disquisition on the nature of gout, but will extract some of his observations upon colchicum. He observes, that it is to have too limited an idea of the powers of colchicum, to suppose it is only capable of relieving the paroxysm. "Its powers of removing gouty inflammation from the joints, is subordinate to its action on the matter of gout throughout the system: and it is to the latter we must look for explanation of those effects which may thus be deemed specific in every just sense of the term." He conceives it acts through the medium of the kidneys, and observes, that, although three or four large doses of colchicum may suffice to induce a sufficient change of action in these organs, to check or withdraw the inflammation from any given part, yet that if we suspend its use at this point, "the matter of the disease thus drawn into the circulation, and not provided with any further or sufficient egress, may be presumed ready to show itself in fresh attacks of local inflammation. If, on the other hand, the altered action of the kidneys

be sustained by the continued use of the medicine, it may be capable of removing the gouty matter from the system altogether; or that surplus of it at least which becomes a source of active disease." Inattention to this point, Dr. Holland believes to be the cause of the occasional anomalous effects attending the use of colchicum, as also of the suspicion now held by many, of its relieving the present paroxysm at the expense of a more frequent recurrence. He says, "on my experience, however, I believe this opinion to be justified only where the medicine has been used imperfectly: or without other precautions, which are more or less essential to its success. I can scarcely doubt the expediency of carrying its employment beyond the mere relief to the local inflammation of the disease. The remedy, with due care, may be made preventive as well as curative of gout; and, as far as I can judge, with no less safety to the patient." "There is still a tardiness and timidity in its application beyond the mere fit of the gout, which is not warranted by an ascertained risk."

In reference to the precautions mentioned in the above extracts, he observes, we should seldom exhibit colchicum, "without the combination of other means, fitted to act freely on the bowels; and calomel, though not perhaps essential, may for the most part be preferred for this purpose. The action of the remedy thus aided, if not more rapid, is certainly more secure. In sustaining fully all the excretions, (for though that of the kidneys be most important it is not solely effective,) we gain the best guarantee that the morbid matter removed from the joints is carried out of the circulation." Dr. Holland prefers the *acetous extract.* "I have given this, in moderate doses, every night for three or four weeks, without a single manifestation of ill effects. Its combination with calomel and other purgatives in the outset of an attack of gout,—with morphine or other sedative, and with occasional laxatives in the progress of the malady,—and with alkalies and stomachic bitters in sequel to it, and for the prevention of its recurrence, furnish us with the greater part of what is needful in this disorder, as far as medicine merely is concerned."

6. *On Mercurial Medicines*—Dr. Holland considers, that these are too frequently used as mere laxatives; and too sparingly and inefficiently where relief to certain varieties of inflammation, or the absorption of various morbid effusions and excretions are sought for: in which cases small and scattered doses harass the bowels with fretful and irregular action, without being efficient for relief. He says also, that the admixture of other aperients with *calomel*, often impair its mercurial effects, although such may be proper where we only desire to produce prompt and full discharges from the liver and bowels: but "even in cases of obstruction of the bowels, when there is threatening of topical inflammation, calomel adequately given, without the addition of other laxatives, will often be more effectual for relief than in any combination with them. Its single action is much less irritating to parts thus disposed; while there is generally more distinct and speedy exercise of its specific effect upon membranes already in an inflamed state." He speaks highly in favor of the more extensive use of the *oxymuriate.* "I have seen its influence in augmenting the secretions, procuring the absorption of morbid growths, altering the state of the skin in many cutaneous disorders, and changing the character of morbid actions generally throughout the

system, in cases where I believe no other medicine, or combination of medicines, would have had equal effect. Its conjunction with bark, steel, sarsaparilla, &c. afford resources of the greatest value in the treatment of disease. And, though otherwise held by common opinion, I think it on the whole as safe a medicine as calomel in the hands of the practitioner; inasmuch as its distribution can be made as equal and determinate: and its effects, from being given in a state of solution, are less likely to be interrupted by mechanical hindrances in the stomach and bowels."

7. *On the Use of Emetics.*—Our author is of opinion, that practitioners of the present day have in many affections substituted injudiciously the use of purgatives for that of emetics, and that in very many complaints we should make a much freer use of the latter than we do. They are pre-eminently useful in the commencement of fever, in various gastric affections (in which all other treatment is often unavailing until the disordered secretions be thus evacuated), in affections of the liver and portal system:—in cases of slight jaundice, as also of fevers of warm climates, (which have such close relation to the functions of the liver and the circulation through the chylopoietic viscera) they are of primary utility. He has found them of great utility in the epidemic influenzas of late years, while as aids to expectoration generally, they act a most important part.

"The use of this remedy in the disorders of *children* is at present much less general than it ought to be. In very many cases emetics would beneficially supersede that employment of purgatives which often adds to the irritation it professes to remove. In the infantile fever for example, which is a type of various disorders, an occasional dose of ipecacuanha, so as to excite vomiting, (especially where there is much of the cough which attends this complaint, and large secretion from the mucous membranes,) will be found more effectual than any other means. It is to be noted, further, that the action of vomiting is for the most part singularly easy in children; more immediate, and generally less distressing than that of purgative medicines." 298.

8. *On the Use of Opiates.*—Dr. Holland observes, that since the free use of purgatives has become established in this country, opium has been much less employed, and although of late years, by reason of the introduction of the preparations of morphia, it has again been more freely resorted to, yet, he thinks, not to the degree it deserves. Moreover it is very frequently administered in a very inefficient dose.

"Yet medical experience does but follow common observation in recognising the inestimable value of sleep in sickness; of the suspension of pain, and the check to all disordered actions, thereby obtained. For pain and sleeplessness, though strictly but symptoms of other aliments, may often in practice be viewed as disorders in themselves, the removal of which is essential to the success of our general treatment.* How frequently do we see a nervous restlessness come over the patient, the consequence of protracted sickness or other causes,—retarding cure, by preventing the due effect of remedies, and receiving no relief

* "A physician of large practice, whom I knew but in the latter days of his life, acted not unwisely, perhaps warily, in carrying about with him a box of small opium pills; with which he often gave relief, or made preparation for it, while yet in the house of his patient."

itself from the means employed for the disease. In such cases the physician is not to submit himself to names or technicalities. The regular course of treatment must be suspended till the hindrance is removed; and even seeming contradictions to this course may safely be admitted for the attainment of the object. Here opium is the most certain and powerful of the aids we possess; and its use is not to be measured timidly by tables of doses, but by fulfilment of the purpose for which it is given. A repetition of small quantities will often fail, which, concentrated into a single dose, would safely effect all we require." 420.

It is well known also, that opium, when used to relieve some very severe forms of painful diseases, is not followed by the same ill-consequences, which succeed to its use in slighter cases. And, truly does he add, "the injurious effects of this substance as a medicinal agent are altogether overrated; there is reason to say, respecting the general action of opium on the animal economy, that no agent of equal and similar power produces its peculiar effects with less detriment to the constitution; nor is there any which admits of such extension of use, if gradually made, without fatal result."

"The power of this remedy in checking various morbid actions in their earliest stage, even such as have no direct relation to the nervous system, is too much neglected in modern practice. In common *catarrhs*, for instance, 20 or 30 drops of laudanum, or an equivalent dose of some other opiate, given with a warm diluent at bed-time, and followed in the morning by whatever laxative may be required, will often arrest altogether a complaint, which the later use of purgatives, antimonials, and salines would only tardily remove." It is one of our most efficient diaphoretics; the doses of Dover's Powder given, being, however, usually too small.

We have not sufficient space to follow Dr. Holland through some very good observations upon the cautions, yet often useful employment of this remedy in inflammation, in cerebral affections, fever, &c. and we will only extract his opinion on the local use of opium—a mode of treatment coming more and more into vogue.

"The *external* application of opium is not sufficiently brought into use, nor is there a due appreciation of all that may be attained in this way. In many cases of painful affection of particular nerves, I have found great benefit from a strong opiate ointment on a blistered surface; or a little of the muriate of morphia sprinkled over it. In the more complex case of gastrodynia, so trying to the skill of the practitioner, though the cause cannot thus be obviated, yet much relief to suffering may often be given by similar means applied to the epigastrium, or other more special seat of pain. I have found no remedy more beneficial in those irritable forms of local psoriasis, which are so distressing from their obstinacy, than the application of poultices, prepared with a small proportion of a solution of opium, and continued until the state of the skin is thoroughly changed. In many nervous and spasmodic affections, as in some forms of asthma, when we have reason to believe that the medulla spinalis is the chief source of disorder, the same remedies may be applied along the course of the spine; and often with singular good, when all methods of depletion and counter-irritation have proved utterly unavailing." 431.

9. *On the Use of Digitalis.*—We consider Dr. Holland's observations under this head as very important, being calculated to remove the timidity which often proscribes or unduly limits the use of digitalis. His recom-

mendations do not arise from any theory of the action of this substance, but, are of a practical, or rather of an empirical character.—he feeling himself unable to explain many of the anomalies which are often found to accompany its employment.

"After all that has been written upon this medicine, there is reason to doubt whether its capabilities have yet been brought into full use. An agent which can thus alter the heart's action, and, under management, safely sustain this alteration for a considerable time, is a very important one in the hands of the practitioner; affording means wherewith to control, more or less directly, all the actions of the system. It is, however, this singular sedative effect on the heart, and the occasional suddenness of the change so produced, which creates an apprehension as to its use, not warranted by what we learn from exact observation. Though employing the medicine somewhat largely in practice, I do not recollect a case in which I have seen any injurious consequences from this cause:—none such, certainly, as were not speedily relieved by its discontinuance, and other means of easy adoption.

I am far from inculcating neglect of the symptom just mentioned. But while admitting that deviation below the average standard of the pulse is less frequent and considerable that excess above it, and than certain morbid states of the brain are sometimes thus indicated, I feel assured that alarm is too readily taken in the early effects of digitalis on the heart, even should intermittent action be one of these. Similar effects occur habitually from so many other causes affecting the body, without injury which can be especially referred to this symptom, that if there be justification on other grounds for sustaining the action, and care given to watching it, the practice may generally be pursued without any risk to countervail the good." 535.

Not only the combination with digitalis of tonics and stimuli, does not impair its specific effects, but even extends them, particularly where it is especially desired to act on the kidneys in debilitated habits. "I have frequently given digitalis in the ordinary doses, for weeks together, in combination with the træ. ferri mur. or tinct. ferri am., without finding cause to withdraw or intermit the medicine; and this in cases where the patients are far advanced in years, and the circulation become feeble from disease. It would be difficult to find any single combination more effective than this in old cases of general dropsy: in œdematous swellings from debility; or in the anasarca following scarlet fever, where, together with weakness, there is still left an excited and irritable state of the arterial system. The action of the fox-glove as a diuretic, seems even to be quickened and sustained by being conjoined with the steel; while the latter acts apparently as a safeguard against some of its peculiar effects. It cannot be doubted that this medicine may often be given with safety and advantage, even where the action of the heart is already extremely irregular. The irregularity arises occasionally from causes which the digitalis is capable of lessening or removing:—as from fluid actually effused. But besides this less direct influence, it is probable that its immediate action on the heart, tending under certain circumstances to produce intermittent pulsation, may, under other circumstances, correct the irregularity already existing. And accordingly I have often found perfect equality of beat to ensue for a time upon its use, where the motions of the heart had been very unequal in their ordinary state." Dr. Holland has even found it useful where actual structural mischief existed, at least in one form, viz. the enlarged and flaccid heart, connected sometimes with dropsy.

"Respecting the several forms under which digitalis is used, there is some reason to believe the *infusion*, rightly prepared, to be the most certain and beneficial in its effects: and admitting of every combination with other medicines which can in any case be required. This, indeed, is an instance where, from the nature of the agent, it is singularly needful that the quality of its preparations should be equal and uniform. It is certain that many of the inequalities, and seeming anomalies in the effects of digitalis are owing to neglect of this important precaution.' 452.

10. *On Antimonial Medicines.*—"I annex this subject to the preceding, having chiefly in view what is still the insufficient use in English practice, of those medicines expressly sedative to the actions of the circulation. I have noticed this in the instance of digitalis; and it is equally true as regards some of the antimonial preparations, and the tartarized antimony especially. The opinions held in relation to the supposed sudorific effect of these medicines, have prevented due attention being given to their influence in allaying inordinate action; either of the brain, as in mania and delirium of different forms: or more generally inflammation, or febrile states of the whole system.' 552.

Of its relation to mercury and bleeding in inflammatory disease, Dr. Holland thus expresses himself.

"As a febrifuge in the most direct sense of the term, it may be doubted whether we possess any more direct or speedy in effect. It is impossible to have witnessed its effects when adequately given, in acute pneumonia or bronchitis, or croup, without recognizing the same fact, and seeing that where it does not wholly supersede bleeding as a prior remedy, it at least abridges the demand for this; and comes in aid of it, by inducing the same state of the vascular system throughout the body. Its relation to mercury in these cases is that of most interest; the effect apparently the same, so as to make it in many instances doubtful which of the two remedies may be best relied upon for instant use; yet the mode of operation, presumably very different." 554.

As to its dose and mode of administration. "The influence, indeed, of dose and manner of employment, curious and important in all cases, well deserves notice here. Our practice in England (limited, as I have said, by older views,) seldom goes beyond such use of them in inflammatory disorders, as to sustain nausea for a time, and thereby repress the circulation; and even this intention is often made subordinate to the forcing of perspiration, as a means of relief. It is certain that the full value of the medicine is not thus attained: and though we yet want proof of the efficacy or need of the large doses of tartar-emetic employed by some of the Continental physicians, it seems certain that those we use might be beneficially encreased in relation to their sedative effect."

Although he is averse to confusing or negativing the operation of so powerful an agent by complex combinations, he considers that one between tartar emetic and opium as very excellent, especially in cases of mania and cerebral irritation, and, more reservedly, and after depletion in purely inflammatory affections, as pneumonia, bronchitis, rheumatism, meningitis, &c.

"Reverting to the use of this combination in affections of the brain, it is remarkable how speedy and assured the effect often is. In the wild restlessness of delirium tremens this is sometimes very strikingly seen. In fevers attended with much cerebral disturbance its employment has been attended with similar good. And in various forms of spasmodic disease I have experience of the same kind: giving evidence of benefits which are not so readily or completely obtained by the use of opium alone." 558.

AN INQUIRY INTO THE PROPAGATION OF CONTAGIOUS POISONS BY THE ATMOSPHERE, &c. &c. &c. By *S. Scott Alison*, M. D. Octavo. Maclachlan & Co. 1839.

THIS volume is written in a popular style, and designed for general perusal; but it is well worthy of the medical practitioner's attention. Would that the doctrine of contagion and infection could be divested of its imaginary terrors, and shewn in its true light to the world at large! How many thousands would then have been saved from death, and how many millions from terrors of the most dolorous kind, during the cholera-phobia of 1832-3-4, when the quarantines, purifications, and fumigations were frightening the isle from its propriety!

"The patient laid on the bed of sickness, having many wants and occasions for a thousand little offices, but being unable to assist himself, generally desires, and, where apprehension does not cause desertion, obtains the aid of good and gentle friends, whose very presence affords a gratification to the sufferer which none can sufficiently value, who have not, like him, felt its blessings. Their assistance and constant presence is absolutely necessary to supply his several wants, and to render a situation, often painful, and ever irksome, less acutely so.

But not more necessary is such assistance to the mitigation of the sufferings of the body, and the soothing, the calming of a fevered mind, than is it urgently wished for, and longed for by the patient, to whom even the momentary absence of the ministering being from his bedside is frequently the cause of much mental agitation and of pain.

But where, as we have often seen, the patient has still his senses left, and dearly loves the objects around him, what must be the amount of that bitterness of mental struggle going on in his breast, alternately heaving with desire for their presence as his greatest comfort, and with the alarm every amiable being must feel, lest those most dear to him should fall the victims of their tenderness, and be cut down themselves, in their holy endeavours to relieve his sufferings?

The apprehensions of the patient lest those kind and beloved friends ministering to his wants, and nobly incurring on his account all the risk of a dangerous situation, should unhappily derive from him, through the medium of Atmospheric Contagion, the same disease,—are calculated to produce a state of excitement highly injurious and directly opposed to that calm and cheerful state of mind so favourable to his recovery. But these apprehensions are often changed for the dreadful reality, and no little mental suffering has been produced, and no trifling obstacle to the convalescence of a patient has been raised up, by the intimation that a dear friend has caught the pestilence from him, and has in consequence been deprived of life.

The belief in the doctrine of Atmospheric Contagion is hurtful also to the friends and attendants of the patient—by its naturally conveying the impression that he is a centre of a poisonous agent, whose immediate tendency is to propagate the distemper and diffuse itself through the atmosphere, extending to it, its deleterious attributes, to be felt by all who respire it." 10.

In another chapter our author goes, we fear, a step too far—namely, in coming to the conclusion that "atmospheric contagion has no existence, properly considered, in the light of an atmosphere holding in solution a specific contagious poison." He admits, however, that contagion, such as

that of small-pox or syphilis, may be communicated by contact, or by the impregnation of fomites. But he questions the atmospheric contagion, for these reasons:—

"*First*, That in the whole course of its history, it fails to supply us with sufficient evidence thereof; *secondly*, That its supposed career is not marked with the same uniformity of effect, and constancy of character, cognisable among other powerful agents, but appears rather to be regulated by no fixed laws; *thirdly*, That the phenomena of disease do not go to shew that it is dependent on atmospheric contagion, the occurrence and dissemination of which, moreover, it could not explain.

We are further disposed to deny its existence at all, for this reason, that its admission is opposed to the testimony of direct observation and of experiments instituted for the purpose." 24.

The greater part of the work is occupied with illustrations and historical facts, supporting the above propositions. The reasoning is close and logical —and cannot be analyzed. The whole must be read with attention, and is well calculated to effect good purposes.

It is a general rule that in epidemic diseases, those who have or have had communication with the sick, are not more prone to the malady than others who have not had such communication. But our author has judiciously admitted some exceptions. These are:—

1st. The relations and inmates of the same house inhabited by one sick of fever.

2d. Those receiving disease from actual contact with the palpable contagious matter, or by contactual contagion.

3d. Those persons, through the operation of fear, and from depression of mind, affected with disease, as fever, cholera, &c.

4th. The attendants in fever institutions, &c. 71.

Every intelligent person must readily comprehend how these exceptions may be explained without admitting the transmission of specific virus from one individual to another. It is, however, almost entirely on these exceptions that the contagionists depend for the maintainance of their gloomy doctrines. On this account it will probably be prudent to dwell a little on these apparent exceptions.

In respect to the *first*, it is hardly necessary to observe that the relatives of patients, if inhabiting the same localities, must be as liable to sickness as the sick themselves. They are generally suffering under depression, and fear of infection—they are irregular in their meals and rest, having little appetite, and harassed by night-watching and other debilitating agents. They also respire an impure atmosphere. In fine, the wonder is that so many friends and attendants escape disease under such disadvantageous circumstances.

The 2nd exception we shall quote entire.

"Visitors and attendants are liable to increase their ordinary chance of taking the prevalent distemper, by touching the body or clothes of the sick, when he labours under a disease marked by a palpable contagious poison. Though the poison cannot be diffused through the air, it may, and sometimes does, act by contact, which we call contactual or immediate contagion. That, of course, can operate in those diseases only in which a palpable poison is eliminated. Those diseases are in this country chiefly small-pox, chicken-pox; the plague,

if it can now be said to be a disease of this country; the itch; and, as is commonly believed, measles, scarlet fever, &c. &c.

Though the propagation of these diseases may take place from contact with their peculiar contagious matters, we are disposed to think, that, at least with most of them, especially the latter, the cases which occur in that way are very few.

It is sometimes difficult to produce disease, even when the skin is cut, and the matter is then introduced. That step sometimes fails in respect to cow-pox matter, even when fresh; and small-pox matter we have known to be in contact with the tips of the finger for a minute or so, in innumerable cases, as in feeling the pulse, and no disease has followed. Women affected with small-pox bear healthy children.

Almost the only diseases which we are disposed to think are propagated by contact with the person or clothes of the sick, are small-pox, chicken-pox, scabies, plague, &c. They all possess palpable matters in abundance.

Many instances are known to us, where children have got small-pox, and of grown-up people who have got the itch, from sleeping with those sick of these distempers, and thus coming in contact with them closely, and for some time; and where they have not been seized with them, when only breathing the same atmosphere used by those sick.

Thus visitors and attendants may get disease by contact with palpable contagious matter, that is, by contactual contagion, and by touching clothes impregnated with the same, that is, by fomitic contagion, which they would not have taken, had they merely been respiring the air used by the patients." 77.

The question will here naturally occur to most minds—how do people catch the small-pox, &c. who have no communication with the sick? The answer will be—that the poison is then in the air; but not emanating from the bodies of the infected. This is rather a doubtful doctrine. If the poison can be transmitted by inoculation, it is not very unreasonable to suppose that it can be transmitted through the air of an apartment, a street, or a town. It is true that the infection of syphilis cannot be thus transmitted. It must have contact. But all poisons may not be so ponderous as that of lues. If odours are capable of being transported to considerable distances through the air, we do not see why certain morbid poisons may not be so also. Our author admits that the following fact is a very obstinate one, and not easily overcome.

"The history of the Royal Infirmary of Edinburgh, and of Queensberry House, an institution for the reception of fever patients, shews that on some occasions almost all the clerks and nurses waiting upon those affected with fever, have been seized with it also.

And it would appear to be owing to some agency peculiar to fever patients or their wards; for in regard to the first-mentioned institution, it is ascertained that it is with those attendants only, who wait upon those patients, that the greater amount of sickness is experienced. Those attendants exclusively occupied in the surgical wards being attacked in no greater proportion than those unconnected with the institution." 79.

The author exerts all his ingenuity to overcome these obstinate facts. In the first place, he observes that such occurrences do not take place in all institutions of this kind—and therefore that there may be some peculiarity about the localities not yet ascertained. He thinks it is owing to the general "*contamination of the atmosphere*," by morbid effluvia from the bodies of the sick. This will be granted by most of the contagionists—but then

how comes it that the diseases are identical with those of the patients first affected? The case, however, is argued with great ability, and the whole work deserves attentive perusal. We have been able only to glance at the first two chapters, since an analysis of the whole book would require a fourth part of the journal, so closely and tersely are the arguments stated and the deductions drawn. We strongly recommend the volume to the profession.

A SHORT TREATISE ON TYPHUS FEVER. By *George Leith Roupell*, M.D. Physician to St. Bartholomew's Hospital, Consulting Physician to the Seaman's Hospital, &c. &c. Octavo, pp. 301. London, 1839.

FEVER—inflammatory fever—nervous fever—typhus fever—typhoid fever—gastric fever—grastro-enteric fever, &c. &c. &c.—do these and the hundred-and-one terms besides, so frequently met with in medical writings, represent severally a particular and definite state of disease, which can readily be distinguished by fixed and essential characteristics? Alas! no. So vague, on the contrary, are our notions respecting the different forms of fever, and so indefinite and defective our descriptions of them, that after reading two separate treatises on the disease, we are often unable to say, whether the type treated of in each be, or be not, the same. Take, for instance, the works of Louis and Armstrong. Do these authors describe the same species of fever? Yes, answers one learned physician; undoubtedly no, exclaims another, equally learned. What then are we to gather from such discrepancy of opinion? This sad and humiliating truth—that as yet we have no accurate knowledge of the specific characters of fever, much less of those more minute points of difference which constitute its numberless varieties. Nay, truth compels us to go farther still, and add, that as yet we do not possess any undisputed, clear, and definite *generic* description of fever; so that we may well say in the words of Ramazzini, pronounced by him nearly a century and a half since: "Verum quod dolendum est, post annorum chiliades omnes medentium conatus et machinamenta ad febris naturam explorandam, nedum oppugnandum, pene in irritum cesserint. Quoties cum veterum, tum recentiorum medicinæ procerum præstantiora monumenta, et, quæ credunter cedro magis digna, volumina evolvere mihi volupe est; idem prorsus mihi evenire sentio ac Terentiano seni, qui cum in filii sui causa plures advocatos accersisset, cosque inter se pugnantes deprehendisset, *incertior*, inquit, *multo sum quam dudum.*"

The objects which have been aimed at in the work before us, are thus stated in the preface:—

"To assert the claim of the prevailing epidemic to be ranked among specific fevers, to separate it from some with which it has long been improperly confounded, to show at the same time its analogy with others, and to improve the pathology of all." iv.

After remarking that a knowledge of the seat, character, and progress of a disease, is essential to precision and success of treatment, Dr. Roupell adverts to the indefinite manner in which authors have treated of typhus fever. This disease has been prevalent for several years past in London and its outskirts, and Dr. R. has treated numerous cases, both at the Seaman's Hospital and at St. Bartholomew's. To prevent this, the true typhus, from being confounded, as it too often is, with other febrile diseases, our author proposes "to define accurately the malady to which the term should be restricted, and at the same time assign to it a proper nosological position." This has not been accomplished either by Sauvages or Cullen; nor has the real character of the disease been elucidated by more recent authors in our own country. The definitions of Cullen, Sauvages, Tweedie, and Copland, being quoted, are thus commented on.

"In the above descriptions Typhus is considered to belong to the continued fevers. It is looked upon by more recent authors in this and other countries not as an individual disorder, but as one into which others may readily be and frequently are converted." 6.

The result of Dr. R.'s observations has led him to a different conclusion. He is convinced that the prevailing fever is owing to a certain specific cause; that it pursues a definite course, passing through its stages with regularity, spreading by infection, and marked in its progress by a distinctive rash.—Here, then, we have all the characteristics of the genuine exanthemata of authors, to which class it seems correctly and exclusively to belong. This opinion as to the nature of the disease was stated in a paper read by our author, before the College of Physicians in 1831, and was then thought by him to be original. He has since, however, discovered that Professor Hildenbrand of Vienna, had anticipated his views, and to him therefore he resigns the claim of originality.

Without pronouncing, at present, any opinion on the views expressed in the foregoing paragraph, we deem it due to Dr. Copland to remind our readers that in that part of his article on fever which treats of *typhus*, (Dictionary, p. 1009,) he details fully, and with his usual clearness, precisely the same views and opinions for which Dr. R. is contending. But this latter gentleman, by an extraordinary, and almost unaccountable mistake, has quoted Copland's Definition of *Typhoid Fever*, overlooking altogether that of genuine *typhus*. Either Dr. R.'s own notions respecting the nature and symptoms of the disease about which he is writing, are very loose; or he must have been not a little surprised at the inapplicable description given by the author of the *Dictionary*. The occurrence of such an error is a strong proof of the truth of those remarks with which we introduced our present article, and, if we are not mistaken, we shall find other similar errors as we proceed. But to resume our analysis:—

Professor Hildenbrand's observations refer especially to the epidemic typhus of 1806, but he had studied the disease for twenty years and upwards, under circumstances very favourable to enquiry. He states that simple contagious typhus has eight stages or periods—1st, the *stage of contagion*—this period he deems instantaneous; 2d, that of *incubation*—period from three to seven days; 3rd, the stage of *invasion*—duration from six to twelve hours; 4th, *inflammatory* stage—duration seven days; 5th,

nervous stage—this continues five or six days, after which ensues, 6th, the *critical* stage, which last only a few hours, and is followed by, 7th, the stage of *remission*—during this stage the symptoms gradually abate for a period of seven days, when the patient enters on, 8th, the convalescent stage. This runs through several weeks, and has no exact period. The patient, now recovered, is, to a certain extent, exempt from a recurrence of the disease, and occasionally finds that some previously existing ailment has departed with the fever. The symptoms attendant upon the several stages are detailed at large; but we do not think it necessary to transcribe them fully. On the fourth day from the commencement of the inflammatory stage, a purpurous rash appears on the surface of the body, particularly on those parts which are kept warmest. Together with this, the peculiar exanthema of typhus, petechiæ, often appear. The former sometimes disappears in the fifth, or nervous stage; the latter remain and even increase, or now show themselves for the first time if they have not previously appeared. In some cases the rash does not exist at all, or is so little developed as to escape notice. Occasionally it presents itself under the form of miliary petechiæ, and disappears in a few hours; or having been out its usual time, departs without affording corresponding relief. The disease is most infectious in the fifth stage.

There are many circumstances which may complicate typhus, and numerous irregularities may arise in its course; but these are common to typhus with the other exanthemata.

Having quoted Hildenbrand's description, Dr. R. proceeds to consider "whether or not the epidemics which have appeared from time to time, and have recently prevailed, ought to be classed with the disorder thus described." That of 1831, of which an account was published by our author, "presented all the striking features of this malady." Dr. Armstrong, in his description of the typhus of 1817, notices an anomalous rash," which he had known to be occasionally mistaken for the eruption of measles or scarlet fever. Petechiæ were very common. Huxham, in his account of the epidemic of 1734-5, mentions not only petechiæ but also papulæ and pustules. Sir John Pringle, treating of the fever which broke out during the "black assize" of London, in 1750, mentions *certain spots* which were "frequent but not inseparable attendants of the fever." "These are," he continues, "the true petechiæ," a statement questioned by Dr. R. who concludes, (we think without sufficient reason,) that what Pringle "terms petechiæ, may probably have been the rash usually seen in these cases, or perhaps a mixture of both."

The fever which prevailed at Genoa in 1799 and 1800, presented, according to Rasori, petechiæ, *or an eruption little differing from petechiæ*, or a miliary eruption, or both; from which confused description Dr. R. infers, that the characteristic symptom of typhus must have been present. M. Louis, describing the disease which he terms, "gastro-enteritis, putrid, adynamic, ataxic, typhiod fever," speaks of a rash, rosy, lenticular, mixed with sudamina. The other symptoms of the fever corresponded, says Dr. R. with those described by Hildenbrand.

Were, or were not, the various forms of fever alluded to in the foregoing paragraphs identical? We think not, and we are confirmed in our opinion by the authority of Dr. Copland, who distinguishes the true typhus as well

from the *low nervous*, and *putrid* fevers, as from the *typhoid fever* with *prominent gastric affection*, of the French. This distinction, if it be true, (and most physicians in this country will assent to its truth) not only renders useless Dr. R.'s quotation from Huxham, Pringle, and Louis, but converts them into an argument against his own views, by showing that the rash on which he lays so much stress as characteristic of true typhus, is, according to his own representation of the passages quoted by him, of not unfrequent occurrence in other and different forms of fever. Huxham himself insists strongly on the difference between his *slow nervous fever*—that to which the observations cited by Dr. R. refer—and another type of fever which he terms *putrid malignant*. Yet in his description of this latter, he mentions the frequent occurrence not merely of petechiæ, but of a rash—"*sæpissime occurrit exanthema morbillis simile, &c.*" Here then we have the rash, which we are told to regard as characteristic of typhus, occurring in a fever different from that which Dr. R. assures us was genuine typhus. How is this difficulty to be surmounted? Either the rash is not peculiar to typhus, or both the types of fever referred to were identical. But Huxham, who saw and described them, and whose authority therefore must be conclusive, declares that they were widely different—different in their origin, different in their symptoms, and different in their method of cure.

Nothing, we grant, can be more difficult than to establish satisfactorily either the identity or difference of epidemics, the description of them being in general extremely loose, and the nature of the disease seldom or never defined, for we cannot give the name of definition to a mere detail of all the existing symptoms, whether common or peculiar. But the very difficulty here mentioned ought to make authors more cautious in supporting any favorite views which they may have, by a reference to previous writers, who are perhaps no authority at all on the subject in question. This is but one of the many evils which have resulted to medical science from the neglect of concise, strict, and apposite definitions. How many totally different diseases have been jumbled together in consequence of assigning too much importance to their *common* symptoms! And how much has not this same circumstance contributed to a slovenly inattention in practice! Very few of the great mass of medical practitioners enquire minutely into the *peculiar* symptoms of diseases, and few therefore ever advance to truly rational methods of treatment. Diseases are recognized solely by their family resemblances; their individual traits are altogether overlooked. How imperfect, and to a rightly constituted mind unsatisfactory, must such a knowledge of them be!

Has typhus ever been accurately defined? We have seen that Dr. Roupell finds fault with the definition of Sauvages, Cullen, Tweedie, and Copland. Let us hear what he himself has to say on the subject. Referring to the epidemics to which we have already alluded, he thus proceeds—

"It will not be necessary to dwell longer upon the proof of identity between all the diseases above enumerated. Many of the symptoms are found in all fevers, others again are common to what are called putrid or pestilential fevers, and a third class are peculiar to the disease in question. Each of these orders of symptoms will claim some notice at my hands with the hope of being able to arrive at a general conclusion from particular propositions.

Typhus fever in common with all others, exhibits in the first place all the phe-

nomena incident to symptomatic or secondary fevers. The constitutional febrile symptoms which arise in consequence of local inflammation so closely resemble those of idiopathic fever that they cannot often be distinguished, except by the history of the case or by the local affection.

It occasionally puts on those signs which are supposed to denote putrescence, such for instance as extreme prostration, great tendency to gangrene, fætor of the evacuations, cadaverous smell of the whole body, copious discharges of blood, and a rapid tendency to decomposition after death. Scarlet fever as is well known, not unfrequently puts on this appalling character. Putrid symptoms may also come on during the progress of the measles or small-pox. These signs therefore may be called accidental and are common to a variety of specific diseases.

It has in the third place some other symptoms essentially its own; these are rash upon the skin, the power of spreading by infection, and the certain period of duration." 32.

The above division of the symptoms into three groups has an appearance of accuracy, and the whole passage quoted might be considered by a superficial reader as both very clear and satisfactory. And it would be scarcely possible to find in any other writer a passage equally calculated to exemplify the illogical vagueness which is unfortunately so common in medical writings. The symptoms of typhus fever "essentially its own, are rash upon the skin, the power of spreading by infection, and the certain period of duration." What! are not these symptoms equally characteristic of measles, of small-pox, of scarlet fever? How then, speaking of typhus, can they be said to be "essentially its own"? Dr. Roupell is known to be a learned man, and when learned men write thus, what can be expected from the common herd?

But let us not proceed too fast. Perhaps the doctor meant, that the above-mentioned symptoms, when existing in conjunction with certain other symptoms mentioned, are pathognomic of typhus fever. Well then, let us consider the subject in this light. We have already shown that the symptoms composing the third group are common with typhus, to measles, small-pox, and scarlet fever. Dr. R. himself states that this is the case with respect to the symptoms comprised in the second group: while those of the third, are common to all fevers, and thence of necessity measles, small-pox and scarlet fever. Thus *all* the symptoms of typhus fever are common to measles, small-pox, and scarlet fever. How absurd such a conclusion! And yet to no other can our author's statement lead.

Dr. R. devotes five pages to the consideration of the *rash* of typhus, requoting the authorities previously mentioned, and in addition also that of Chomel, who states that there is an eruption in the majority of cases. As Dr. R.'s views are influenced chiefly by the frequent appearance of this rash, we think it due to him to transcribe the following statements respecting it.

"There are many circumstances which throw obstacles in the way of obtaining accurate information respecting the rash in typhus. Patients frequently delay their applications to hospitals for several weeks, so that in one class of cases it will have disappeared before the disorder came under notice. In another class it will probably be overlooked, for it is often so slight as to escape any but an experienced eye. Then again it will not be perceptible on the chest or arms, where it is usually expected to be found. On one occasion where it had been sought for in vain on the front part of the body, it was perceived abundantly on the back, which was accidentally examined, owing to the necessity of confining

the patient in a straight-waistcoat. Little can be learned on this subject, from the patients themselves, when asked if they have any eruption on the skin, they almost invariably say no, and even should it be fully out, are seldom aware of it. Treatment may in some degree interfere with its appearance Many cases have occurred in which no rash could be detected, after the adoption of active measures at the commencement, especially if emetics were administered on the first symptoms declaring themselves. Independent however of all these circumstances, it appears in the larger number of cases. According to Louis it is seen in two out of three, nay more, in fifteen out of sixteen; Chomel says, it appeared in thirty-two out of fifty-four. By reference to my note-book, I find that the rash is recorded in 70 out of 100 cases promiscuously taken, no mention being made of it in the remaining 30: again, out of 100, all of whom had the rash, it was present in 86 on their admission, and showed itself subsequently in the rest.

The rash then may fairly be considered as one of the characteristics of this fever, and the assertion of Sauvages, that it arises from an over-exciting treatment is sufficiently contradicted by modern experience. For the rash in this as in other eruptive fevers seems to be exhibited more fully, since the general introduction of a cooling regimen has been adopted and sedulously enforced. To Sauvages' objection against placing typhus among the exanthemata, on account of the lateness at which the rash appears, we may oppose the fact, that it is constantly perceived on the third or fourth day.

The eruption itself is of a red colour, the shades of which are various, in some cases bright and vivid, more generally however dusky, and undertoned; if the rash is fully developed the cuticle is slightly elevated, and when the vessels are very turgid the eruption is perceptible to the touch. It is most commonly found on the chest, trunk and limbs; sometimes on the face, and was noticed in a recent case to have reached and occupied the scalp; nor is it confined to the outer surface of the body, but extends itself to the lips and lining membrane of the mouth.

It appears in spots or patches circular in form, and varying in size from the diameter of a pin's head to that of a pea. No itching attends its presence on the skin, nor is desquamation of the cuticle an ordinary consequence. From the appearance of the patients in the eruptive stage, the term spotted is not inappropriate to this fever; and its existence in London in 1750 may be presumed from the fact that the bills of mortality for that year, besides the ordinary eruptive disorders, as measles, small-pox and scarlatina, announce as prevalent 'Malignant Fever, Spotted Fever, and Purples.' We learn from the same source that in the above-mentioned year the mortality from these causes was very considerable, 1229 persons died from small-pox, 321 from measles, and 4294 from fever. In the following year the number of deaths were proportionately small, 998 from small-pox, 31 from measles, and 3219 from fever. A decrease in the number of deaths from these causes alone of nearly six hundred.

The duration of the rash in Typhus, according to M. Chomel, is from three to four days; should any mottling of the skin appear after this period, he attributes it to a fresh eruption; and remarks that the exanthema disappears occasionally on the second day after it has shewn itself. It may here be observed that in some cases, when the rash could not be perceived, but in which it was deemed advisable to bleed the patient, and a ligature was applied for that purpose to the arm, the eruption appeared below the tape. Acting upon this idea I have other times been able to exhibit it, by artificial congestion of the vessels." 37.

Our author details eight cases of typhus. intended to illustrate the different periods at which the rash appears. In the first case the disease, if it were really typhus, was mild to a very unusual degree. The patient, already

ill two days, was admitted into hospital on the 14th of July, and discharged well on the 1st of August. The rash appeared on the day after admission—the third day of the fever.

The second case was also mild, being unattended with delirium: (is true typhus ever without delirium?) and the rash, ("a copious eruption of dusky red spots") shewed itself on the fourth day.

The third case was complicated with pneumonia—rash on the fourth day.

In the fourth case, "sore throat" was complained of, and the rash appeared on the fifth day.

In the fifth case, "the skin was spotted with a rash" on the sixth day. The late appearance of the rash in this case, Dr. R. attributes to an emetic administered on the first appearance of the symptoms. "In several other instances," says our author, "where the fever commenced in the hospital, and the same treatment was adopted, no rash could be discovered." We shall hereafter have occasion to advert to this circumstance.

The subject of the *sixth* case had been ill six days before admission into hospital. "There was no appearance of rash when he was admitted in the early part of the afternoon, but in the evening, when seen in bed, he was covered with it."

In the *seventh* case, the disease originated in St. Bartholomew's Hospital. An emetic was given, and no eruption appeared.

In the *eighth* case, the rash had not entirely vanished a month after its first appearance. Dr. R. remarks that "the cases are generally severe in which this retardation occurs, and that it seems to be often occasioned by some deep-seated mischief. The rash then, he continues, "may appear at various periods, it may be prolonged some weeks, or it may not appear at all, and I have seen it recede after having been out for a few hours only. We are at no loss for analogous effects in other exanthematous disorders. If M. Rayer's work should be consulted, it will there appear that the eruption in measles will sometimes show itself earlier than usual; for instance on the third day, and even sooner. The same author gives us examples on the other hand of its retardation to the fifth or sixth." In scarlet fever, the eruption, it is well known, is sometimes altogether absent.

Nor can the rash of typhus be confounded with that of any other exanthematous disease.

"It cannot be mistaken for variola, as it never assumes a pustular form; from roseola it is to be distinguished by the following signs, the patch is smaller, it appears later, and there is no itching.

It cannot be confounded with simple erythema, as that is not accompanied by fever; but from measles it is not in its mere aspect to be distinguished, and indeed it may fairly be conjectured that that epidemic, which Sydenham describes as being measles of an anomalous and malignant form, was real typhus. The measles, he says, of 1674 deviated from rule, did not preserve their type, the eruption came out irregularly, was often confined to the neck and shoulders, the bran-like desquamation did not result, peripneumonia more frequently took place, and in some cases the fever would last 14 days and more.

This disease differs from measles in many respects, its duration is longer, it is wanting in the usual precursory affection of the eyes and sneezing; the rash is more irregular in form, it does not pass progressively from the head or trunk to the extremities, and those who have had the measles are not free from an attack of this disorder.

The rash of typhus again differs from scarlatina in being less vivid, the redness is not so diffused, there is more tendency to moisture on the skin, there is usually no sore throat, nor is typhus in my experience ever followed by anasarca." 46.

To the analogies existing between typus fever and the other exanthemata, already insisted on, Dr. R. adds, on the authority of Chomel, the frequent appearance of sudamina.

Having thus exhibited a full, and, as we believe, a correct statement of our author's views respecting the exanthematous nature of typhus, it may not be inexpedient briefly to enquire how far those views are borne out by the facts which he has adduced in confirmation of them. Do these facts afford a satisfactory and stable foundation for the theory which Dr. R. has built upon them? Unquestionably not. In the first place, it is by no means certain that the disease was the same in the different epidemics to which he alludes. On the contrary, we have both reason and authority for concluding that in some it was widely different.

Secondly, the rash is not accurately described by any of the authors cited, so that it is impossible to say whether it was the same in all. One author (Pringle) does not even mention its existence, and we have only Dr. R.'s inference that it *probably* did exist.

Thirdly, The date of the invasion of the rash varies more than in the true exanthematous diseases.

Fourthly, It is more partial than they, affecting only certain parts of the body.

Fifthly, It does not run a fixed and determinate course—it has no settled period of increase, acmé, and decline; at least we are justified in presuming that it has not, since neither our author, nor any of the writers cited by him, have attempted to describe its progress. Chomel mentions, in general terms, that it continues through a period of three or four days. In one of Dr. R.'s cases, already referred to, it had not disappeared after the lapse of a month. To invalidate the objection of irregularity in the appearance, &c. of the rash, Dr. Roupell refers to the occurrence of similar irregularities in the eruptions of measles, scarlet fever, &c. True, but in these diseases such irregularities are exceptions to what is generally observed: in typhus fever, on the contrary, they are of frequent and ordinary occurrence. There is therefore no analogy between the cases.

Sixthly, The rash is altogether absent in many cases of genuine typhus. It existed in only 70 out of 100 of our author's own cases. Dr. Cowan, in his excellent little work on the "*Vital Statistics of Glasgow*," states that the proportion of patients with eruption varied in each month. Do not these facts prove that the eruption of typhus is merely an accidental complication, (a very frequent one, we admit,) and by no means an essential element of the disease. But not only is the rash alluded to often wanting in genuine typhus; it is often present where typhus does not exist. In the form of gastric fever, which prevails among certain classes of our manufacturing population, an erythematous rash, mixed both with papulæ and pustules, is met with in a large proportion of the cases, and is subject to precisely the same irregularities that we have noticed in the eruption of typhus. This symptom of gastric fever is noticed by both the Franks. "Peticulæ quidem sæpe sæpius de præsentia typhi securum afferunt indicium, item

miliaria; *at non ita securum, ut illis solis diagnosis superstrui possit; peticulæ enim non raro febrium gastricarum, vel aliarum sociæ.*"* Thus writes Joseph Frank. John Peter's testimony is still more conclusive. In his description of *continued gastric fever*, we have the following passage:—"Interea tum prius, tum hocce morbi stadio, *frequentissima ad cutem exanthemata, petechialia, miliaria tum alba, tum rubra, cum illis interdum mixta*, &c.† What then? Is gastric fever essentially an exanthematous disease? Dr. Roupell will scarcely go so far as to assert this.

Seventhly, We have our author's own authority for the fact, that the administration of an emetic in the commencement of typhus prevents often the appearance of the rash. Could the eruption of small-pox be thus prevented? Most assuredly not.‡

That we have discussed this question at such length, has been owing to the estimation in which we hold Dr. R.'s character as a physician. But for this, we should have thought it sufficient to allude in general terms to the manifest weakness and inconclusiveness of the arguments with which he has attempted to support his views.

Let us now proceed to the next section of the work, the subject of which is, the contagious nature of typhus, or, to use the words of our author, its "power of spreading by infection."

In this country the majority of practitioners believe that typhus may be propagated by infection; but some have not been able to satisfy themselves upon this point, and on the Continent the prevailing opinion is unfavorable to the idea of infection. Our author alludes to Dr. Gooch's tests of contagion, the two most important of which are the effects of seclusion, and of communication with, or approach to, the sick. The most rigid and complete seclusion does not, it is true, always succeed in shutting out infection. Nor is this totally inexplicable, for it is not difficult to imagine that the subtle agent of infection may be readily conveyed through the air, when we see grosser particles of matter, manifest to our senses, thus transported to

---

* Prax. Med. partis primæ, vol. 1, p. 269. Taurini, 1821.

† De Cur. Hom. Mort. Tom. 1, p. 154. Mediolani, 1813.

‡ We are perfectly aware that Dr. R., in a subsequent page, alludes to a case in which the eruption of small-pox was checked by an emetic. The case, he says, is referred to by Dr. Marsh in the 4th vol. of the Dublin Hosp. Reports. We are not told whether the eruption was altogether *prevented*, or only *modified* by the emetic. If the latter, the fact proves nothing in Dr. R.'s favor; but if the eruption was altogether prevented, we would then ask how the disease was known to be small-pox.

We may as well allude here to another subject on which our author quotes Dr. Marsh's authority. In the volume of Reports above-mentioned, this latter gentleman relates a case of intermittent fever, in which the disease was caught, he alleges, from a patient labouring under typhus. Now, that a case of intermittent fever occurred in a person exposed to the contagion of typhus, we do not for a moment question; but that such contagion had any thing to do with its production far exceeds our belief. If, however, notwithstanding our incredulity, the intermittent did actually spring from such an origin, it must be a new species, and deserves therefore a distinct proper name. Let us call it then the *Dublin Marsh* Fever.—*Rev.*

enormous distances. During the volcanic irruption (eruption ?) at Sambawa in 1815, ashes were carried by the wind to Java, a distance of 300 miles.—"Dr. Prout, in his *Bridgewater Treatise*, gives an account of the remarkable haze which appeared in 1782, which was of a pale blue colour, and occasionally yielded a strong and peculiar odour, during the continuance of which, epidemic diseases prevailed; the same author noticed an alteration in the weight of the atmosphere before the appearance of cholera in 1832, and explains it by the supposition that a gaseous body considerably heavier than the air, occupied its place, and this body he considers as a variety of malaria. Not vegetables only, but minute animals, are said to be thus occasionally suspended. Should this be true, we can understand that by the decomposition of such bodies, disorders may be generated." But our author's object is "not to find a source of disease, but to show how easily and how far infectious matters may be conveyed by this medium. The following incidents may serve as practical illustrations of the above assertion.—Sir Gilbert Blane mentions that, an isolated case of scarlet fever occurred amongst a ship's crew at sea, long separated from intercourse with the land. Again, the children at the Foundling Hospital have no communication with others, from one year's end to another; yet measles, and small-pox appear from time to time among them." Dr. Heberden relates that a man who had been several months in the Penitentiary at Millbank, having no communication, by letter, or by clothing, with any one except the persons belonging to the establishment, who were all free from small-pox, was attacked by that complaint, which, however, at the time was prevalent in the neighbourhood.

The above facts, particularly the first, render it probable that infectious diseases may, and do propagate themselves widely, through the medium of the atmosphere; but it must not be overlooked that they admit also of other explanations; and with regard to typhus fever, we have very strong evidence to prove that the range of contagion is very limited.

"Our chief reasoning then must be founded on the facts which we observe when persons in health approach those who are infected, or when disease appears in a healthy situation, immediately upon the arrival of an infected person; hence in the first place, we should look for the propagation of a disease to those in attendance on the sick, and should expect to find that nurses and medical practitioners would be the greatest sufferers." 51.

To show that such has been the case, Dr. R. alludes to the death, in one year, of Mr. Cook, Dr. Fergus, Dr. John Home, Dr. Johnson, and Dr. Sims, while many other practitioners were attacked, but survived.

"At St. Bartholemew's Hospital alone six pupils were attacked during the last session, and about as many during the one immediately preceding. Among the nurses in attendance upon the sick in that establishment infection was almost universal. Two of the superintendants in one of the medical wards in quick succession were attacked and died. Others were seized, but recovered. Of the whole number of the inferior nurses who were taken ill I am not exactly certain, but seven were under my own charge." 52.

All these facts, which correspond strictly with the statements of Dr. Tweedie, respecting infection in the London Fever Hospital, and, we may add, with the records also of that excellent institution the Fever Hospital of

Glasgow, warrant us in believing that typhus fever spreads by infection, being propagated from person to person.

But a still more conclusive proof remains, namely, the propagation of the disease in a healthy situation by the arrival of infected persons. During the Winter of 1830 and the Spring of 1831, great distress prevailed amongst the lower classes of maritime men, to alleviate which, a Refuge was established on the North side of the Thames. It was soon crowded to excess, and, fever becoming prevalent, the inmates were removed by boat-loads at a time to the Floating Hospital. Before their arrival, cases of fever existed on board, yet they were of an ordinary character, and did not present the peculiarities exhibited by those received from the Refuge. But—

"The disorder thus imported soon spread itself over the ships, patients admitted for surgical and other complaints were attacked, the residents on board suffered from fever of a similar kind, and the immediate attendants were severely visited. There were seven nurses employed in the medical wards, whose duty it was to attend on the fever patients, and who returned home when off duty to their families on the south bank of the river. Six of these nurses were attacked with fever of this new type, which a third time made its appearance in a fresh situation, viz. in their houses on shore. The symptoms were the same in each of these different places, and the disease in all was to be distinguished by the characteristic rash. Other circumstances too, both positive and negative, may be mentioned, which confirm my belief that this disease spreads by infection.—All the attendants at the Refuge, both medical and others, were more or less severely affected by it. Again there was no such disorder in vessels moored near the floating hospital. Nor was there any such fever on the South bank of the river before it appeared in the hospital ship, as I was informed by Dr. Sutton, the physician to the Kent Dispensary, and by other practitioners in the neighbourhood." 54.

Some facts mentioned by Morgagni would lead us to infer that the dead body of a person who had died of fever, is capable of propagating the disease; but Dr. R.'s observations in St. Bartholemew's Hospital tend to show, "that typhus, readily communicable during life, ceases to be so to any serious degree afterwards."

Having discussed the mode in which typhus is propagated, our author proceeds to consider the "causes of its production."

The notion is generally entertained that under certain conditions the poison of typhus can always be generated. Thomson, Hildenbrand, Blane, Pringle, &c. state it as their opinion, that air overcharged with human exhalations is the cause of typhus, hospital, or jail fever. But the facts adduced in proof of these statements do not appear to our author quite satisfactory.

"There was no such disorder amongst the prisoners at Oxford when the black assize was held there in 1577, on which occasion judges, gentry, and almost all who were present perished to the number of 300; the persons in the jail alone we are told were not injured by it. Passing over the improbability of prisoners giving rise to a disease under which they did not themselves labour, it appears that a malignant fever was at the time prevalent in Oxford, to which we are told that '200 more persons of note fell victims besides numbers of lower degree.' Again we are informed that in 1750, when the two judges, the Lord Mayor, one of the aldermen, one sheriff, two or three of the counsel, several of the jury, and above 40 more died, no uncommon sickness was observed among

the prisoners who came to the bar or were in Newgate. Now it seems clear that a very severe fever, if not this very disorder, was then prevalent in London." 61.

That vitiated air, bad food, and all debilitating causes will predispose the system to receive infection—that the influence of such causes will lead to the extension of any disease propagated by infection, our author admits; but at the same time he denies that such causes are alone capable of producing an infectious malady. Several striking instances, in which extreme filth and closeness failed to originate typhus, are noticed, after which he thus sums up his arguments.

"All then that we can strictly infer is, that debility will predispose to the disease, but as it exists in those previously in robust health, and as when debilitating causes are present it is not always occasioned, we must look for some active, special, and specific virus. The germ of this disorder will not, I believe, be often wanting, for in some of its various forms it seems to be almost always in activity in some portion or other of the world, and amongst all civilized communities of whose disorders we have any accurate account. And when we consider how readily the poison may be conveyed either by the atmosphere, or goods, and the minute particles which may excite the disorder in those susceptible of its influence, we may more properly consider the disease as extended by a virus in actual operation, than suppose it to be recently generated on every fresh outbreak." 64.

Dr. Roupell alludes to the opinions of M. Broussais and M. Louis, on the cause and origin of typhus. It would be idle to detail these here, as they must already be familiar to the readers of this Journal. Besides we have shown that the typhoid fever described by French writers, is a very different disease from the typhus which prevails in these kingdoms. In this latter, lesions of the digestive mucous membrane are comparatively rare; and when they do exist, they would appear, from the train of symptoms, to be for the most part only secondary and contingent.

It would be a strong point in favor of the specific nature of typhus, if it could be shown, that after one attack the system was no longer susceptible of the malady, Hildenbrand considers that for a certain time the disease is liable to recur, but that this protection does not last during life. An instance is mentioned by him in which typhus proved fatal in the last of three attacks, which followed one another in rapid succession. A distinguished member of our profession has suffered on seven distinct occasions, and another has had three attacks.

"These occurrences are not however conclusive against placing typhus amongst the exanthemata. For exceptions to the protective power of a first attack are common both in measles, scarlet fever, and small-pox, and examples will probably multiply as our knowledge becomes more perfect and our diagnosis more precise." 64.

Children and aged persons would appear to be less frequently the subjects of typhus. Some authors have claimed for them an entire exemption, but without sufficient grounds for such an opinion. Our author relates three cases of the disease, of the subjects of which, two were children three years old, and one a man aged 53 years.

"*A certain Period of Duration.*"—Under this head our author presents us with some observations, the general tendency of which we cannot certainly comprehend; for, in them, he appears to us not only to appeal to contradictory facts, but to express also contradictory inferences. He begins by stating that "another argument in support of the specific nature of typhus may be derived from the length (*definite* length, we suppose) of time occupied by the disease in its progress;" and then quotes certain authors to show that the usual period of termination is about the twenty-first day. But M. Louis, whose authority he cites, states that the disease occupied a space of from eight to forty days. Hildenbrand assigns to it a duration of fourteen days; and our author himself relates three cases, in two of which the symptoms were at an end within one week, while in the third, convalescence did not begin to take place until the nineteenth day. "These cases," adds Dr. R. "are quoted with a view of showing the termination of typhus at different periods;" and yet, as we have already noticed, he sets out by deriving an argument in support of the specific nature of typhus from its *certain period of duration.* We cannot comprehend our author's object in thus at once arguing *for* and *against* the same proposition. It is by no means difficult to understand what inference he *wishes* to draw, but the adverse facts, it would appear, were too prominent to be left altogether unnoticed.

Dr. R. expresses his belief that the milder cases, above alluded to, as having terminated within a week, exhibited the features essential to true typhus; and in attempting to show the contradictory nature of his statements, we have, of course, been obliged to adhere to his own views. But we are by no means convinced, from his very brief statement of symptoms, that his opinion as to the nature of the disease is correct. To prevent, however, all possibility of misrepresentation, let us give in our authors own words the details of two cases, calculated, we think, to prove the reasonableness of our doubts. Indeed, Dr. R. himself, speaking of the class of cases to which those about to be cited belong, says, "that they could not be positively pronounced to be the disorder now under consideration," and yet he subsequently draws inferences from them, as if the disease was undoubtedly typhus.

Case XV.—"George Maine, aged 25, had been into one of the Asylums for the Destitute, where fever was prevalent, and was admitted into the Seaman's Hospital on the 2nd of April 1831. He had frequent rigors, with pain in the head, back, and limbs, his sleep at night was disturbed, his skin was somewhat warmer than natural, but his pulse was quiet, and there was morbid appearance on the tongue. He had been ill two days. The fever quickly subsided, and on the 6th he was pronounced convalescent.

Case XVI.—"John Clarke, on admission into the Seaman's Hospital, March 4th, 1831, stated that he had been for some time in the Asylum for the Destitute. He complained of frequent chills, with pain in the limbs, and cough. His tongue was clean, pulse 70, weak, skin cool, bowels loose. The head-ache continued for a few days with confusion of intellect and slowness in answering questions; after which all completely subsided in a short time. He was declared convalescent on the 8th of March."

"These," says Dr. R., "are some of a vast number of instances which, from the general outline of the symptoms, and from the circumstances under which

they occurred, justify the inference that they arose from some specific cause! The disturbance of the head, the character of the pulse, the state of the tongue, and the condition of the skin, were not such as would be produced by the accession of simple fever; but such as might arise from the modified virus of some specific disorder, such as typhus." 77.

We cannot, however willing, assent to the truth of these remarks. We have repeatedly known symptoms, similar to those described, exist under circumstances in which the idea of infection could not be entertained. In fact, simple gastric derangement will give rise to a completely corresponding train of symptoms, in ill-fed impoverished patients. Scientific accuracy requires, that in classing diseases, we have some more certain foundation to build upon than a supposed community of origin. We insist on this point the rather that medical men are too prone, during the prevalence of any epidemic, to confound with it every existing disease that bears the least general resemblance to it. How many cases of pleurisy and pneumonia have we known to be treated as influenza, during the prevalence of that epidemic! It will be vain to expect any great improvement in the general practice of medicine, until physicians shall have learned to regard diseases as they really exist, and to reason upon their obvious and sensible characteristics, instead of fashioning for them, as they now but too often do, an origin and a nature, derived in a great measure, if not entirely, from their own imagination.

Among the more serious complication of typhus, our author notices hæmorrage, erysipelas, suppuration and gangrene.

"Hæmorrhage may take place *either* beneath the skin, from mucous or serous surfaces, *and* (or) even in muscular structure. When beneath the skin, it assumes the form of vibices or petechiæ; which sometimes present themselves in conjunction with the rash, at other times appear as it were instead of it." 78.

Four cases are given in illustration of these statements, after which Dr. R. proceeds to remark, that while true petechiæ are of very common occurrence in typhus, the characteristic rash of the disease is often mentioned by authors under that name. He alludes also to the *conversion of petechiæ into the rash*, or rather to the very contrary, if we mistake not the *intended* meaning of the passage. But let him speak for himself.

"Their conversion into the rash is spoken of by some authors as a common occurrence, and we might *à priori* consider it as likely to be the case, for we should certainly expect that effusions of blood would more readily take place from injected than from other parts." 81.

There can be no doubt that the error lies in the first part of the sentence, and that our author meant to speak of the *rash as terminating in petechiæ*.

Another form of hæmorrhage frequently met with, is epistaxis. This, like hæmoptysis, occurs for the most part early in the disease, while hæmorrhage from the bowels comes on at a later period. Bronchitis is constantly met with in typhus, and the morbid secretion often contains streaks of blood. In the fever of 1831, Dr. R. remarked that the hæmorrhage from leech-bites was very profuse. Hæmorrhage has been ascribed to an altered condition of the blood, and this is no doubt one of its causes. Its frequency in the

morbus cæruleus proves, indeed, how much an altered condition of the blood may favor its occurrence; but, at the same time, Dr. R. believes that the state of the vessels themselves in typhus, and the other eruptive fevers, deserves more attention than it has hitherto received. He further adds, that in typhus, "hæmorrhage takes place at one of two distinct periods, the first on or about the third day from the attack, the second upon the fourteenth day, or later." Some cases are given illustrative of the occurrence in typhus of various forms of hæmorrhage. We transcribe the following, in which the morbid appearances were highly interesting.

Case.—"John Michael, aged 16, was brought to the Seaman's Hospital on the 14th of January, 1832, in a state bordering on insensibility; he was constantly throwing about his limbs, his face was pale, the pupil of the eye was dilated, his breathing was oppressed, he had cough with expectoration of blood, and shrank as if he felt pain when pressure was made on the abdomen; the surface of the body was covered with petechiæ. All that could be ascertained about him was that he had had fever, with great pain in the head, and that he had been delirious for a week.

He died very soon after his admission into the hospital. It was observed that the body retained its warmth 24 hours after death. It was covered with purple spots, which were almost entirely confined to the anterior portion of the body.

The liver was greatly enlarged and pale. The spleen was soft and larger than natural. The lungs were healthy in structure, and with the liver and spleen were dotted with petechiæ.

Blood had been effused into the left side of the brain at the lower and back part; the upper portion of the spinal chord was surrounded with blood; there was effusion of blood also into the substance of the left pectoral muscle.

The inguinal glands were enlarged and red, and when cut into yielded blood mixed with a purulent fluid." 87.

Erysipelas.—"During the prevalence of the epidemic in various years, idiopathic erysipelas has been a very common and a very serious addition to other complaints in persons exposed from their situation in hospitals and elsewhere to the vicinity and infection of typhus, and so common was it in the progress of the fever during the present year, as well as during that of 1831, that no doubt could be entertained that it was essentially connected with and incident to this disorder. Dr. Bateman noticed it in the House of Recovery, and considers it an accessory disease. M. Louis observes, that shivering rarely took place in the course of the disease except to usher in some new calamity, such as erysipelas. It seems to arise at two periods, of which one is within the first week, usurping as it were the place of the ordinary rash. It prevails at the same time as typhus, is preceded by the same symptoms, and arises amongst nurses or those in attendance upon the patients ill with that fever." 88.

Erysipelas frequently seems beneficial in the later stages of typhus, for, on its invasion, a train of anomalous symptoms will often at once disappear. Cases of this kind are given, and also others in which erysipelas alone presented itself, in persons who had attended patients labouring under typhus, some of whom had erysipelas, and some had not.

The inflammation in typhus frequently terminates in suppuration. Collections of pus form in various parts, especially about the face, neck, and head, and still more frequently in the ear. Several cases illustrating this complication are given, but we have not space to transcribe them.

The following Case, however, deserves to be noted, inasmuch as it shows

that, in typhus, hopes of recovery may be entertained under circumstances apparently the most desperate.

Case XXXV.—"Anne Clanny, aged 28, having been ill three weeks, was admitted into St. Bartholomew's Hospital, on the 9th of December, 1837, with a flushed and dusky countenance, pains in the limbs, violent pain in the head, with throbbing of the temples, uneasiness in the abdomen, increased on pressure, urgent diarrhœa, a dry, brown tongue, and teeth covered with sordes. The spotted rash was present, was marked and distinct. The chief peculiarity in this case was the urgency of the symptoms referable to the abdomen and the character of the evacuations. The abdomen was much distended, extremely painful, there was constant diarrhœa, and the stomach was so irritable that neither medicine nor nourishment could be retained. The discharges from the bowels, which were copious, consisted of yellow purulent matter of a fætid odour. Her recovery was extremely problematical for more than a week. She was extremely feeble, yet could not be kept in bed without force, and then talked wildly. Her countenance became livid, her extremities cold, her skin clammy, her pulse mounted up to 140. The fur on her tongue became black, the muscles of the face were convulsed, her eye looked glassy, the evacuations from the bowels still appeared purulent, and with the urine were passed unconsciously. A change for the better took place on the 17th of December. She slowly recovered, and left the hospital on the 26th of January." 96.

Our author makes some remarks on the *nature* of the inflammation in typhus, and quotes from Heberden, Hunter, Thomson, &c. passages which, to us, do not appear to bear very closely on the point in question. He next relates cases in which carbuncle, extensive sloughing, &c. occurred during the progress of the fever. In one case, all the soft parts of both lower extremities mortified, and both legs being amputated, the patient recovered.

The serous membranes are often implicated in typhus.

"Although the inflammation excited in typhus most frequently involves the mucous membranes and cellular tissue, and has a great tendency to suppuration or gangrene, yet this is by no means invariably the case. The serous membranes are often implicated, and the ordinary products of increased action in those parts are not unfrequently produced, forming complications of peritonitis, pleuritis and meningitis. A great many examples might be given, but it will be sufficient to cite a few only to illustrate this statement." 105.

Of these we copy the following, which is given as an instance of peritonitis complicating typhus.

Case XLII.—"Martha Dean aged 20, was admitted into St. Bartholomew's Hospital on the 4th of January, 1838.

She had been ill a week. Her illness commenced with pains in the limbs, epigastrium and chest; purging of dark-coloured matter, with thirst, loss of appetite and great heat of skin. Menstruation had been suppressed for three months, she was not enceinte. Her symptoms on admission were pain in the chest and epigastrium, coldness of the extremities, swelling of the right leg, tongue coated in the centre with a brown fur, bowels relaxed, evacuations dark, no pain in the head, no unnatural sound to be detected by auscultation in the chest, pulse 128 and very compressible. There was in this case a mixture of the rash with petechiæ. On the 5th, menstruation appeared. On the 6th she was reported to have slept well, there had been no evacuation from the bowels, the pain in the epigastrium was less. She continued to improve until the 13th, when she was attacked by a shivering followed by pain in the abdomen, the pain was increased by pressure and deprived her of all rest, her pulse 130 and very

feeble, her tongue dry and brown, breathing was performed by the respiratory muscles alone. No relief was obtained, and she sank on the 14th.

On examination post mortem the abdomen was found to contain a considerable quantity of turbid fluid mixed with flakes of lymph, and the intestines were coated with a layer of recent lymph which glued them slightly together.

There were several patches of ulceration in the ascending portion of the large intestines.

The other viscera were sound with the exception of the fallopian tubes which were observed to be filled with pus.

No perforation of any portion of the intestinal canal had taken place.

There were no morbid appearances either in the chest or head." 107.

Now, we would ask any unbiassed man of judgment, whether, in the case just related, the abdominal lesions of themselves were not sufficient to account for all the symptoms, without supposing the existence of specific typhus? It will be found, on examination, that from the very commencement, and throughout the whole progress of the case, the leading symptoms were referable to the stomach or bowels; while pain of head, delirium and stupor, were absent, or at least are not mentioned. We are told, indeed, that there was "no pain in the head." There were, it is true, the rash and petechiæ, but few physicians, we think, will join Dr. Roupell in attributing so much importance to their presence. The gastro-intestinal derangement will account satisfactorily for the former; while petechiæ, it is well known, may present themselves in all diseases which weaken the *crasis* of the vital fluid.

It is with regret that we thus call in question the correctness of Dr. R.'s discrimination, or, we should rather say, classification; for on points of practice, we doubt not that he distinguishes with sufficient accuracy. But when men *write* about diseases, they do not always display the same judgment and caution which they employ in *treating* them. Either they are blinded by some favorite theory, against the evidence both of reason and observation; or failing through negligence to consider well the subjects which they discuss, they throw their remarks together loosely to the great waste of their readers' time and patience, and the incalculable detriment of science.

Of pneumonia occurring as a complication of typhus, our author relates two cases out of many, and then proceeds to consider the state of the pulse in this disease. Rasori says that it varies extremely, and Dr. R. gives a few cases confirmatory of the truth of this statement.

We have thus completed a faithful and tolerably full analysis of that part of the work, (extending over 116 pages,) which is devoted more especially to a description of the symptoms of typhus. Of the remaining pages, however, between 50 and 60 are occupied with a re-consideration of these symptoms; and present, together with a repetition of many of the facts previously stated, certain new observations and reflections, to some of which we purpose briefly to advert.

Typhus, our author remarks, may terminate at the end of a week, with mild yet characteristic symptoms: or, in a somewhat severer form, it may be prolonged during the second week, with but little indication of any serious organic change.

"Should, however, the disease be aggravated to a third degree, a more formidable train of symptoms present themselves, such as blackness and dryness of the tongue, subsultus tendinum, tremors of the limbs, local inflammation, ery-

sipelas, gangrene, sloughing, low muttering delirium, which are too frequently the forerunners of death. If then typhus can and often does exist without exhibiting these last mentioned exaggerations of its features, we are justified in considering them as something superadded, or as an aggravation of a disease which may be confined to a much more limited course. And here we may obtain important instruction as to the cause and treatment of these symptoms from collateral knowledge about the same phenomena, already familiar to us from their presence in other diseases." 117.

To what other diseases does Dr. R. chiefly allude? Let himself speak.

"After venesection, parturition, or injury of any part of the body, there follows more or less constitutional excitement, with a tendency to the formation of pus, accompanied by a dry and hot skin, black tongue, muttering delirium, subsultus tendinum, stupor, and many of those formidable symptoms that characterise severe attacks of typhus. These symptoms are now properly referred to inflammation of the inner lining of the veins, and it seems therefore a fair inference to be drawn, that although the cause in the two cases may be different, yet the effect in both is the same; and that both in typhus and the peculiar form of typhiod fever which results from injuries, inflammation of the vessels, and the consequent admixture of morbid secretions from the inner membrane with the blood, is the cause of the serious and alarming symptoms which arise, as well as of the secondary lesions." 119.

And again—

"Thus we see that inflammation of a vein, and admixture of morbid secretions from the inflamed part with the blood, causes, on ordinary occasions, typhoid symptoms, and gives rise to a fever attended by subsultus tendinum, low muttering delirium, and a black tongue. The similarity of the symptoms in phlebitis, and in one stage or period of typhus, gives reasonable ground for belief that the corresponding appearances in the two diseases arise from a not dissimilar cause, and hence we see an explanation of one great train of effects in typhus, and learn how typhiod symptoms appearing in various diseases, both chronic and acute, may easily and naturally be confounded with real typhus.—Hence also we see how readily what is called spontaneous typhus can be generated. This disease is said always to accompany an army, but phlebitis, exhibiting urgent constitutional symptoms, may probably have been mistaken for it." 125.

We were somewhat startled by the unqualified statement contained in the first sentence of the former of these paragraphs, which, if only its expressed meaning be regarded, must lead the reader to imagine that the grave symptoms there detailed, are the *usual* consequences of venesection, parturition, &c. But passing over this, let us consider whether the inference drawn by our author, be, as he represents it, a fair one. On what data does he ground this inference? Has pus been found in the veins of patients who have died of typhus fever? Have "morbid secretions from the inner membrane" been met with, either attached to it, or mixed with the blood?—Again and again must these inflammatory results have been observed, if they really exist in typhus. But alas! for our author's views, no such arguments as these can be adduced in their favour. What then? Are those views altogether unsupported? No; that would be too negligent a proceeding even for a downright theorist. It is urged upon us that the symptoms which characterise severe attacks of typhus, are the same as those

attendant on phlebitis. Well, grant that they be: does it follow that "although the cause in the two cases may be different, yet the effect (namely, admixture of pus, &c. with the blood) in both is the same?" If this were acknowledged with regard to phlebitis, we might pursue a similar line of argument with respect to that form of pneumonia which occurs in unhealthy exhausted patients, low gastric fever, pestilential intermittent fever, &c. &c. In fact, there is no asthenic disease whatever, which may not towards its close, present the train of symptoms generally denominated typhoid. Will Dr. R. contend that in all such cases phlebitis exists? If so, we should like to have his proofs, failing which, we must continue to believe that the graver symptoms of typhus are no more produced by phlebitis, than they are by asthenic pneumonia, low gastric fever, &c. &c.

After these remarks we cannot but look upon Dr. R.'s long quotations on the subject of phlebitis as misplaced, and therefore altogether useless.

Hæmorrhage.—The frequent occurrence of this symptom in typhus has already been noticed. It may present itself at an early or a late period of the disease. In the former case, Dr. R. thinks that it depends in a great measure on increased activity of the vessels; in the latter, on changes in the circulating fluid itself. These two distinct forms of hæmorrhage, occurring as they do under widely different circumstances, cannot, Dr. R. affirms, be too carefully distinguished from each other. This remark is equally applicable to the hæmorrhage of purpura, which presents itself in two different forms, very distinctly marked, and of opposite characters.—Several cases of the disease in the *sthenic* form were, some years ago, treated in St. Bartholemew's Hospital by venesection, and with the best results.—A case related by Dr. Latham, in the first volume of the Medical Gazette, illustrates the good effects of depletion in the form of purpura here alluded to.

Erysipelas.—"The next subject which claims our attention is the connexion of erysipelas with typhus. This occurs very frequently, so frequently indeed that it cannot be regarded as a fortuitous event. It appeared in one-seventh of the cases under my care in 1831, and quite as often in the later epidemics, nor was the proportion less among the cases recorded by M. Chomel. It is remarked by Dr. Tweedie, that in the 'London Fever Hospital, as well as in general hospitals, erysipelas is by no means uncommon. Of protracted cases of malignant fever especially, it is a frequent and dangerous consequence.' In one case that has been quoted, a man suffering from erysipelas communicated it to a fellow-patient who was attending upon him; nor are other examples wanting to me where both medical men and hospital nurses have been attacked after similar exposure. Sometimes, indeed, when produced by the typhoid poison, erysipelas appears as the primary affection, in which case its origin is not unlikely to be overlooked, and the disease to be considered as an idiopathic form of erysipelas. It most commonly, however, shews itself in the third week of typhus, and often earlier even when signs of amendment have declared themselves. If it does not shew itself spontaneously, the slightest cause induces its appearance. Commencing usually in the form of a red band across the nose, it quickly extends itself over the rest of the face, then upwards to the head and scalp; the eyes are closed; vesication takes place; and matter is frequently formed in the subcutaneous cellular tissue. When thus produced, it seldom extends beyond the face and head, and varies in its attack from mildness to extreme severity. When

it takes its rise from parts previously or recently irritated, as by cupping or other causes, or from excoriations, especially those about the nates, it extends over a wider space, involving sometimes the whole trunk; but in whatever situation it may appear, or however excited, it almost always becomes phlegmonous, terminating in the formation of pus. The appearance of erysipelas cannot but be considered salutary in some cases, as headaches will often disappear and convalescence proceeds rapidly afterwards, in others again it is the immediate cause of death. No doubt can, I think, be entertained that this form of erysipelas is contagious: it seems, indeed, to be one of the shapes that typhus can assume, and the conjecture may be allowed that this is the epidemic form of the disease; for it is notorious that those seasons which give rise to typhus generate also erysipelas.

I have cited a case to show that typhus can produce erysipelas, but as yet have been unable to satisfy myself of the possibility of one person contracting typhus from another labouring simply under erysipelas." 134.

Such a case, Dr. R. informs us in a note, has been mentioned by Mr. Ingleby, in a paper contained in the Edinb. Med. and Surg. Journal for April 1838. As we do not happen to have the number at hand, we are unable to ascertain what grounds Mr. Ingleby had for believing that the contagion of erysipelas had produced typhus. We should be inclined to weigh his arguments well before assenting to his doctrine. Our author offers some observations intended to shew that erysipelas is produced by inflammation of the veins, and quotes several authorities in confirmation of this doctrine. But of all the authors cited only one, namely M. Ribes, says any thing which bears directly on the subject. We cannot understand what M. Rayer's remarks on the malignant pustule, or *anthracion*, have to do with that form of erysipelas usually met with in typhus. Indeed M. Rayer himself, as Dr. R. afterwards informs us, having examined several cases of erysipelas, failed to discover any traces of inflammation in the neighbouring veins.

The frequent occurrence both of hæmorrhage and erysipelas in typhus, and the true exanthematous diseases, has already been mentioned by our author, and is again strongly urged by him as an argument in favor of the views which he advocates.

We pass over Dr. R.'s farther remarks on "suppuration," "gangrene," "the peculiar inflammation of typhus," and also "the state of the pulse," inasmuch as they contain little worthy of notice, in addition to what has been said in previous parts of the work.

Putrid Symptoms.—A proneness to become putrid appears natural in many constitutions, in others it may be acquired by particular circumstances, but typhus and the other exanthemata seem invariably to develop or generate the condition in all. The putrid diathesis may be engendered by atmospherical causes, and still more so by certain habits of life.

"Passing at once to the condition of that class in which a disposition to putridity is most especially shown in disease, we meet with it amongst those compelled to live in dark, ill-ventilated, and crowded apartments. We find it in persons whose limited means and hard earned wages deny them wherewithal to allay the bare cravings of hunger, still less to guard against the inclemencies of the weather, and the vicissitudes of an ever-varying climate, and on whom,

lowered by privation and exposure, despondency exerts her baneful influence. Now what effect does want of light and fresh air produce on sanguification? What causes the pale cheek and haggard look? The answer to these questions is given us by M. Andral, who observes in his pathological anatomy, that there are certain morbid conditions in which before life has ceased the laws which regulates all matter overcome the resistance of vitality, and while consciousness remains and life still lingers, the system loses its power of generating heat, chemical affinities begin to exert themselves, and putrid symptoms result, these he refers to depression of nervous energy, and then goes on to notice the different modifications of external influences, which more or less are in constant operation upon our frames, such as exclusion of the sun's rays, living constantly in a damp situation, and imperfect nutrition of the body; occupancy of unhealthy places, or deficient alimentation, at once strikes at the functions of the lungs and skin, the direct and indirect organs of sanguification; wasting ensues, the circulating fluids are impoverished, the blood becomes thin, watery, deficient in fibrine, and palpably disordered." 151.

Dr. R. strenuously combats the theory which regards typhus as the result of mere debility, and asks how the advocates of this theory can account for the inflammatory results so frequently witnessed in the brain, lungs, intestines, &c.

"A theory," he remarks, "which ascribes the origin of typhus to the operation of a specific poison producing a series of morbid actions, and provoking inflammation of a modified character, must at least be less injurious in practice than that doctrine which ascribes all the processes of this fever to so insufficient a cause as debility." 155.

But putrid symptoms, though they always appear in the protracted and severer forms of typhus, are yet not absolutely essential to that disease. They must, however, originate in some cause, and Dr. R. again attributes them to vascular inflammation

"Should inflammation of the minuter vessels be admitted as an early step in typhus, an explanation will at once be afforded us of the various consequences which ensue." 158.

Is it come to this? "Should inflammation of the minuter vessels *be admitted*"—we thought our author had long ago *proved* its existence, at least to his own satisfaction. In the following passage he again expresses himself with confidence as to the truth of his theory.

"It is one of my objects to show that typhus is an eruptive disease. The simple appearance of a rash proves an alteration in the natural condition of the vessels of the skin; that this condition is inflammatory, the symptoms which accompany it sufficiently attest." 159.

This passage, literally interpreted, infers that "the natural condition of the vessels of the skin is inflammatory." Of course Dr. Roupell does not mean this:—he ought to have inserted the word "*altered*" between "this" and "condition."

But notwithstanding all that has been said about the veins, Dr. R. does not consider it a matter of much moment to enquire whether their minute ramifications, or those of the arteries, are the seat of the inflammation. He nevertheless enters upon the enquiry, which he pursues in a manner worthy the reader's notice, for it is a rare specimen of that very convenient mode

of reasoning, which is commonly called "blinking the question." A great deal is said about inflammation of the veins, and inflammation of the arteries; and authors are quoted to show that the former is of more frequent occurrence than the latter, and that its tendency to spread is greater; and a case is cited from M. Gendrin, in which pus was formed "in the *arteries* of a man who had died from *fever in consequence of a wound in the hand*, and another from Portal, in which the *aorta* of a young man who had *died from measles* was found to be inflamed:" but with regard to the pathology of typhus fever we have only one solitary observation. It is the case of a patient examined by Dr. R., in whom "there were unbounded signs of inflammation *in all the larger arteries*," the *vasa vasorum* being seen distinctly to ramify "upon the aorta and its branches to a second and third degree." Such are the arguments by which our author labors to prove, that *phlebitis* is the cause of all the more grave symptoms of typhus!!

Nervous Symptoms.—Dr. R. proposes to investigate "a few of the peculiarities in typhus, which appear to originate with the head," not to discuss all the cerebral alterations which occur in that disease.

"The affection of the intellect in patients labouring under typhus is singularly curious and almost peculiar to that fever; they get into a state of the highest nervous excitement, are full of apprehension and suspicious of those around them, charge the attendants with the intention of destroying them, and refuse to take medicine from a fear of poison; they exhibit apprehension of imaginary danger or anxiety for self-destruction, and unless carefully watched will throw themselves headlong out of window, or find other means of accomplishing suicide. There is in most the greatest despondency, in others, however, though very rarely, an unusual degree of hilarity. In this fever, what are called the higher faculties of the mind are less affected than the lower; judgment and power of connected reasoning constantly remain when the memory has entirely gone. Hildenbrand states, that being in this condition he conversed about himself with his medical attendants, and made sensible suggestions upon the treatment of his own case; there is indeed a connexion in the answers of typhus patients with the questions put to them, which is often extraordinary, though they afterwards have not the slightest recollection of what has passed, nor sometimes whom they have seen, though they recognized acquaintances at the time. The nervous system exhibits peculiarities as well during convalescence as in the earlier periods of the disease, this will appear from perusing the following illustrations." 173.

We are sorry we cannot afford space for the cases here alluded to.

On the morbid changes of Typhus.—Our author treats of these under the several heads of vascular system, glandular structure, membranous tissues, and parenchyma of organs. Under the first of these heads he considers the state of the blood as well as of its vessels, and cites a number of facts and observations calculated, he thinks, to prove, that the constitutional symptoms arise from an impression on the vessels, and not merely from changes in the fluids.

"The almost certain order in the phenomena of typhus shows that the chief seats of the disease are involved by it in regular succession. There is, first, an affection of the head, then of the skin, afterwards of the lungs, and, lastly, of the bowels; which regular implication of different organs would lead to the infer-

ence that irritation rather travels through the vessels, than is excited by an impression from the blood, which would act nearly simultaneously on all parts of the vascular parietes." 186.

Dr. R. does not, however, deny that the blood is greatly altered in typhus.

"It is only by the supposition that some change of an injurious tendency takes place in the circulating fluids themselves, that we can offer an explanation of the symptoms by no means uncommon in certain cases during the prevalence of epidemic typhus. The cases to which this allusion refers, are those in which a fatal termination takes place about the third week, when the patients for a considerable time have been in a lethargic state, but are conscious when roused, and declare themselves free from pain. No one organ appears to suffer in an essential degree; the skin is perhaps hotter than natural, the pulse feeble, the tongue dry, hard, and black; the breathing may possibly be somewhat hurried, but auscultation can detect no disease of the lungs, nor is there any indication of essential mischief in the abdomen. Patients in this form of typhus will often take nourishment, and occasionally exhibit signs of amendment. The fatal termination of these cases is very mortifying, as it is impossible to avoid entertaining expectations that they will terminate in recovery; there seems indeed no reason for an unsuccessful result; there are no symptoms of essential organic change to occasion it; no great excitement to exhaust the powers of life; still a serious constitutional disorder is excited, which our remedies are unable to remove, and which the efforts of nature are obviously quite inadequate to oppose: nor do examinations post-mortem, in these instances, throw any light upon the cause of death, &c. &c." 192.

We have already fully expressed our opinion of Dr. R.'s views respecting the part which vascular inflammation plays in the production of typhus. We pass on, therefore, to his observations on the pathology of the

Glandular System.—Under this head he classes the parotid gland, and the glands of the small intestines. The submaxillary gland also, the mesenteric, the axillary, and inguinal glands are all liable to be affected. Suppuration takes place sometimes in the substance of the parotid, sometimes in the cellular tissue around it. But the glandular follicles of the intestinal mucous membrane, are the parts chiefly affected. The lesions which they present, constitute, according to several eminent French pathologists, not merely the origin, but the very essence of "typhoid fever." But is the typhoid fever of France identical with the typhus of this country? Our author believes that it is; and yet, at the same time, he acknowledges, that "inflammation of the glands of the intestines is by no means a constant accompaniment of that form of typhus fever which is commonly met with in our country."

This is rather an unfortunate admission for one who argues, "that inflammation of the intestinal canal, when accompanied by ulceration, is one of the causes of phlebitis," and that phlebitis again is the cause of all the very grave symptoms of typhus.

The mucous membranes in typhus present, either separately or conjointly, various morbid alterations, the chief of which are staining, softening, inflammation, and ulceration. Under the head of mucous membranes, Dr. R. classes all those parts to which Meckel has extended the term, including the conjunctiva, *pia mater*, skin, &c.

Louis has observed that the mucous membrane of the epiglottis, glottis, larynx, and trachea is sometimes affected, though less frequently than other portions of the membrane lining the respiratory organs. Erysipelas, extending to the larynx and upper portion of the trachea, has more than once proved fatal in our author's practice. Bronchitis is of such frequent occurrence, that Hildenbrand considers it essential to the disease. Dr. Tweedie states that it is invariably present.

"The mucous membrane of the alimentary canal is very often disordered; not only does ulceration over the patches of glands destroy the tissue in this part, but in others also: thus the pharynx and œsophagus are occasionally ulcerated, a change which I have myself never met with, but which has been seen by M. Louis, who observes also that the stomach is in most cases more or less seriously implicated, being either softened, attenuated, changed in colour, or texture: still he declares that it was often natural, oftener indeed than in death from other causes." 211.

Of the genito-urinary portion of this membrane it may be remarked, that there is in some cases unnatural redness, and that symptoms of inflammation of the bladder occasionally show themselves.

Suffusion of the conjunctiva is a very constant phenomenon in typhus, and is especially interesting, if we may be allowed to infer that it indicates the state of circulation within the cranium. It appears early, simultaneously with the cerebral disturbance, or soon after.

But while the state of the conjunctiva thus indicates increased vascularity, the membranes of the brain furnish incontestable proof that, in very many cases, the vascularity there excited has gone on to positive inflammation. Out of 54 cases alluded to in the Cyclopædia of Medicine, 37 exhibited traces of inflammation of the brain. M. Louis admits that the *pia mater* was injected in half his cases. Our author believes that in every case there is increased vascularity of the *pia mater*, and that this probably is all that occurs in the more favorable instances, the vascularity subsiding without further mischief. In the more serious cases, however, when the patients have lived intemperately, or are of an irritable habit, the vascularity incident to the disease lights up into intense inflammation.

"All the characteristics of meningitis are met with in typhus; there is one impression, however, which I do not find mentioned in accounts of inflammation in the brain, several patients have told me that when labouring under this fever they have felt a strange sensation of doubt with respect to their own identity, imagining that their individuality was shared by others, and that they combined many beings in their single selves." 219.

The serous membranes are frequently implicated in typhus. Cerebral disturbance is often attributed to inflammation of the arachnoid, but our author is of opinion that the *pia mater* is the part generally affected. The following passage, relating to inflammation of the pleura, contains a highly important practical caution.

"The pleura is an important part, and with all the other tissues of the lungs is not unfrequently the seat of inflammation. It is a practical point of great moment to be aware of this fact, and to be impressed also with the knowledge that the inflammatory process goes on in this membrane without the usual admonition of the acute pain and hurried breathing which are so characteristic

of ordinary pleurisy. Patients labouring under typhus will often remain in a state of apathy or indifference, and unconscious of all ordinary impressions, local disease therefore is wanting in outward demonstrations; thus pleurisy will occasion no pain, and there will be no cough, as the lungs will be sufficiently expanded by respiration to prevent congestion. I have known irreparable mischief produced before an idea was entertained that any disease existed in the chest, or that attention was drawn to the affected organ." 221.

But while we must be cautious not to overlook pleurisy, it is of still greater moment to be on our guard against the access of pneumonia.

"The comparative insensibility of the parenchyma of this organ (the lungs) will readily satisfy us of the absolute necessity of frequently resorting to auscultation, the use of which is signally exemplified in the treatment of typhus; for it is not only essential to ascertain the fact whether the lungs are inflamed, not only necessary to make out the character of the lesion, but of vital importance also to know the exact spot which is diseased, for there is no strength to be thrown away, and as our measures must be depleting, they must be appropriately directed. In my experience the substance of the lung is affected in almost all severe cases, scarcely has one patient passed through the protracted periods without oppression of the chest, hurried breathing, and small crepitation. The lungs, when examined after death, have presented the various stages of inflammation; and not only has consolidation been discovered at the base, to which part it is confined by M. Louis, but I have seen it also in the upper lobes. A purulent secretion is met with occasionally throughout the structure, and abscess will sometimes form in the upper, and indeed in every other part. In one case examined by me inflammation in the upper lobe of the right lung went on rapidly to ulceration, and large cavities were formed in this portion of the pulmonary tissue." 225.

Gangrene of the lungs is of very rare occurrence in typhus. This affection would deserve more consideration, if it were not for its extreme rarity."

In the greater number of those who die from typhus, the substance of the brain is rosy and injected. This is not remarkable, considering the great vascularity of the *pia mater*, and the intimate connexion of this membrane with the brain, by means of its numerous minute vessels. Sir John Pringle states that he met with abscesses in the brain, and also in the cerebellum, and we learn from Hildenbrand that the brain will occasionally suppurate.

Dr. Bateman considers that the inflammation in this fever is modified, except when it attacks the brain, but I do not see any reason to make an exception to the general rule, because, although the brain is often greatly affected, and though patients who have great disturbance in the functions of this organ, remain comatose for many days together, experience at times great difficulty of utterance, and suffer from effusion, as was exemplified in the case of Clarke, yet they will recover more completely from such affections when originating in typhus than is the case when similar results arise from idiopathic cerebral affection." 225.

Here terminates our author's description of the principal lesions which may take place during the progress of typhus. After some comments on the very numerous organic changes which its poison produces, and a few unimportant remarks on the classification of the disease, he then proceeds to consider the question of treatment, which he discusses at considerable length, and with the judgment of a man well versed in the difficulties of

practice. His remarks on blood letting, the use of opium, and of wine, are particularly worthy of the reader's notice. We regret, however, that he has not explained more fully the circumstances which warrant the employment of the last of these remedies, for there are few practical subjects deserving of more attention. We have known physicians who poured wine into their fever patients almost without measure—we need not say with what result; while others, withholding it entirely under circumstances favorable to its use, have also been very unfortunate in their practice, though not perhaps equally so.

We were among the number of those who hailed with pleasure the announcement of a work on typhus by Dr. Roupell. The physicians of our great metropolitan hospitals, with some honorable exceptions, have done comparatively little for the advancement of medical science. Their unrivalled opportunities for observation have too often been culpably neglected, and too often has the knowledge acquired from them been penuriously hoarded up, instead of being thrown, as it ought to be into the general exchequer. These dignitaries of our profession, if we may so name them, have felt a proud reluctance to descend from their high stations, and compete in the race of science with men less fortunate, though perhaps equally deserving, as themselves. Many also, we fear, have been too busily occupied about the emoluments of practice, to devote much time to anything else. They have therefore rested satisfied with a local fame, when a more liberal spirit might perhaps have earned for them a wide-spread and lasting reputation. But a better feeling begins to prevail among them, and we can now number several of our metropolitan hospital physicians, among those who are most zealous and successful in the improvement and extension of medical science. Their names are not unknown to the profession, nor do they need either praise or mention from us. We have said that we were gratified when Dr. Roupell came forward to rank himself among the better and more liberal class of his compeers. On perusing his work, however, we could not help regretting that he had not withheld it from the public until he had corrected those faults, and removed those imperfections, of which, in the preface, he expresses himself to be fully sensible. A longer contemplation of his subject, and the exercise of a little more judgment, might have enabled him to condense his "short treatise" of 301 pages, into one hundred, or one hundred and fifty pages at most, with eminent advantage at the same time, as regards both clearness and accuracy. Many long and impertinent quotations, which now serve only to parade learning, would, no doubt, have been excluded, if our author had bestowed more time and consideration on his work. Mature reflection too must have taught him that to build vain theories upon the frail foundation which imagination furnishes, is an occupation better adapted to pupils, and inexperienced candidates for practice, than to sober teachers, and physicians long and intimately acquainted with disease. Indeed it is high time altogether to banish from medicine the pernicious practice of theorizing from assumed data. In no other science, we believe, would such a practice be tolerated. Why, then, should it be suffered to continue in medicine?

If we have spoken our opinion freely of Dr. R.'s work, and in many places ventured to dissent both from his doctrines and his statements, we have been influenced solely by a sense of our duty as public journalists;

and we have endeavored in every instance to avoid all possible misrepresentation by laying his own words before our readers, who are therefore fully enabled to judge, whether, in any instance, we have censured without sufficient reason.

But notwithstanding our just dissatisfaction with Dr. Roupell's present treatise, we doubt not in the least his capacity to write a good work on typhus. Let him add to his practical knowledge of the disease, a more cautious and philosophical spirit in examining, selecting, and estimating facts; let him pay more attention to arrangement, to brevity, and accuracy of expression, and we have no doubt that he may re-write and re-model his work, so as to make it really worthy the notice of his professional brethren.

THE MEDICAL PORTRAIT GALLERY.

BIOGRAPHICAL MEMOIRS OF THE MOST CELEBRATED PHYSICIANS, SURGEONS, &c. &c. &c. By *Thomas Joseph Pettigrew*, F. R. S. &c. &c. &c. Parts XIV. and XV. Price 3s. each Part.

OUR readers will perceive that, in spite of positive obstacles and of more discouraging apathy, Mr. Pettigrew still continues this work. He has changed his publisher, and partially altered his plan, arrangements from which he expects, and seems not unlikely to derive advantage.

It is both a natural and a beneficial feeling, which induces us to pry into the lives of illustrious men—to observe the more secret springs of action, the elements of success, and the qualities of mind which have contributed to to make them famous. If such curiosity reduces the intellectual giant to every-day proportions, it encourages the man of such proportions to imitate the conduct and attain the dimensions of the giant. It teaches us that however great the end, the means have been usually homely and practicable by almost all. It breeds emulation because it brings its fruit within the grasp of sober reality, and, stripping success of the mist which distance and imperfect knowledge throw around it, we perceive that, with determination, we ourselves may seize it.

In a profession like ours, torn by dissensions, distracted by jealousies, some common standards of professional excellence become peculiarly requisite. They exercise a powerful influence on our minds, manners, and conduct. We are not only told that such is professional honour or such professional merit, but we see that they have lead, and we feel that they must lead again, to professional success. These breathing examples silence casuistry, convince scepticism. They show that no man is permanently fortunate and happy in medicine, who has not high deserts—and those, more particularly, industry and rectitude. Lord Byron never said anything truer than that—"nothing but virtue will do, after all, in this d——d world."

We are inclined to notice these medical biographies more fully than we have done. If we diffuse harmony, if we spread zeal, if we disseminate and

nurture emulation, we do as great a service to the profession, as we should by communicating a fact in medicine. Probably we do a greater service in the former than in the latter case, for a right spirit excited may lead to great things.

The first of the parts before us contains a memoir and a portrait of Dr. Heberden, and Dr. Philip. We shall not go elaborately into the career of each Worthy as we cite him; but content ourselves with offering a few particulars, interesting to us and characteristic of him. And first of Dr. Heberden.

Dr. William Heberden, the son of Richard Heberden, was born in London, in the year 1710 On the 17th of June, 1717, he was admitted into the Grammar School of St. Saviour, where he acquired the rudiments of his education. In 1724, he entered St. John s College, Cambridge; and took the degree of B. A. in 1728, and of M. A. in 1732. He obtained a fellowship in 1730, and then directed his attention to the study of medicine. Having taken the degree of M. D. in 1739, he practised his profession in the University for ten years. He read an annual course of Lectures on the Materia Medica; and the specimens collected by him for this purpose were, in 1750, presented by him to his College.

"Among his pupils were many, who, in after life, honourably distinguished themselves, of whom it is sufficient to mention, Sir George Baker, Bart., Physician to their Majesties, Dr. Gisborne, President of the College of Physicians in 1797, and Dr. Robert Glynn, well known by his eccentricities."*

In 1746 Dr. Heberden was elected a Fellow of the Royal College of Physicians, and two years afterwards he settled in London, where he rapidly attained to great professional reputation. He would have taken this step at an earlier period, but for some juggling, the nature of which does not clearly come out. On commencing practice in the metropolis, he fixed his residence in Cecil Street. In 1749, he was chosen a Fellow of the Royal Society; and to the Philosophical Transactions, he was a contributor of four papers:—1, An account of a very large human calculus; 2, An account of the effects of lightning at South Weald, in Essex; 3, An account of a stone voided without help from the bladder of a woman, at Bury; 4, Of the different quantities of rain which appear to fall, at different heights, over the same spot of ground.

In 1760, Dr. Heberden married Mary, the eldest daughter of William Wollaston, Esq. by whom he had eight children, two only of whom survived

---

* "Dr. Glynn was educated at Eton, and went to King's College. He obtained the Seatonian Prize at Cambridge, in 1757, the subject being a Poem on 'The Day of Judgment.' He was well known for his wit and humour, for the good qualities of his heart, for his benevolence, and for his learning. He lived to the age of 82, and died in 1800. His physiognomy had a peculiar expression of archness and was unprepossessing, and there is a *jeu d'esprit* recorded, which seems to allude to this circumstance:

'This morning, quite dead, Tom was found in his bed,
Although he was hearty last night;
But 'tis thought, having seen Dr. Glynn in a dream,
That the poor fellow died of the fright.'"

him, the present Dr. William Heberden, and Mary, who married the Rev. G. Genyns, Prebendary of Ely.

Dr. Heberden died in Pall Mall on the 17th of May, 1801, at which time he had reached his 91st year, and was the senior fellow of the College of Physicians. The serenity of his mind at this trying hour is shown by the recorded fact, that within forty-eight hours of his decease, he repeated a sentence from an ancient Roman author, signifying that "Death is kinder to none than those to whom he comes uninvoked."

In 1796, he met with an accident that disabled him for the remainder of his life. Previous to this he had been in the habit of taking daily exercise. His cheerfulness was in no degree disturbed by this occurrence, for when he was fast approaching to the age of 90, he observed that though his occupations and pleasures were certainly changed from what they had used to be, yet he knew not if he had ever passed a year more comfortably than the last.

It must be stated to Dr. Heberden's honour, that he retired from practice many years before his death—and the reason why he did so is creditable to his sagacity. He withdrew in a great measure, at the age of 72. His resolution to retire seems to have been formed in consequence of the impairment of the faculties of Dr. Mead, which Dr. Heberden witnessed in a consultation on the Duke of Leeds. It is reported that Dr. H. then determined within himself, that if ever he lived to the same age (78) he would give up practice. In a letter to Dr. Perceval, written in 1794, he thus alludes to his retirement:—

"I have entered my 85th year; and when I retired, a few years ago, from the practice of physic, I trust it was not from a wish to be idle, which no man capable of being usefully employed, has a right to be; but because I was willing to give over, before my presence of thought, judgment and recollection was so impaired, that I could not do justice to my patients. It is more desirable for a man to do this a little too soon, than a little too late; for the chief danger is on the side of not doing it soon enough." 6.

How true is this, and how high must be our estimate of the good sense of a man, who could not only form such correct opinions, but act on them?—All see, and deplore the ravages of time on others—few willingly admit them in their own persons. And yet it is sad to see men who have outlived their faculties and reputations, still struggling for practice, and descending from the high position of giving the law, to suffer the opposition of contempt, or the humiliating deference of pity.

It is much to be regretted that there are not situations of dignified retirement for the older members of our profession—situations like the judgeships in law, which might serve as a stage between active practice and absolute withdrawal from it. Were there such situations, we should not witness such painful spectacles as few amongst us have but seen—the public would not be exposed to reputation without the faculties which gave it birth—and the younger talent amongst us would find a clearer stage to play its part. There are not such situations; but there is a monitor in every man's bosom which should warn him, and will if he is disposed to listen, that mental, like physical strength, decays; but that, unlike physical, its weakness does not necessarily carry with it the consciousness of its existence. The octagenarian feels that he cannot run a race—but he often does

not know that his is the garrulity of dotage. No strength of faculty, no force of reasoning is proof against the stern law of organization and of nature; and it is while the faculties are strong and reason vigorous, that the resolution should be firmly taken, to withdraw from active life while the intellect continues unimpaired. Who, of a noble or a generous nature, could bear to contemplate himself an object of compassion, "a driveller and a show," in scenes and amidst men where he once shone as a master mind?

Dr. Heberden possessed classical attainments of a high order, and he was liberal in his patronage of works of erudition and of merit. Such a taste would naturally tend to intimacy with literary and scientific men; and Gray, Bishop Hurd, Bishop Lowth, Cavendish, Dr. Jorton, were a few among his associates of this character.

His mind seems to have been naturally inclined to piety, and in the lineaments of his grave and benevolent countenance, a sense of religion is strongly marked. His conduct coincided with this apparent bias of his temperament, and the following anecdote will raise his character in the estimation of the Christian reader.

"Understanding that Dr. C. Middleton had composed a book on the 'Inefficacy of Prayer,' Dr. H. called on his widow soon after the Dr.'s death, and asked her if she was in possession of such a tract? She answered that she was; he then asked her if any bookseller had been in treaty with her for it? She said that a bookseller had offered her £50 for it. He then demanded if there was a duplicate? 'No;' upon that he requested to see it, and she immediately brought it, and put it into his hands. The Dr. holding it in one hand, and giving it a slight perusal, threw it into the fire, and with the other gave her a £50 note."

In Dr. Heberden the practical accompanied the speculative religious feeling, and whilst his faith was lively, his works would have done honour to any creed. His charity to the poor was more extended even than his protection of literary men. There was scarcely a public institution to which he did not liberally subscribe, and his private donations were numerous and large. As soon as his professional emoluments were adequate to his wants, he resigned the fellowship of St. John's, that some poorer scholar might be benefitted by the appointment. "By qualities of this kind," says a slight biographer, "accompanied with great sweetness of manners, he acquired the love and esteem of all good men, in a degree which, perhaps, very few have experienced; and, after passing an active life, with the uniform testimony of a good conscience, he became an eminent example of its influence, in the cheerfulness and serenity of his latest age."

Dr. Wells addressed Lord Kenyon, and will please any reader of taste, with a sketch of Dr. Heberden scarcely more felicitous in style, than correct in fact. Dr. Wells diffidently supposes himself engaged in the attempt to describe Dr. Heberden's character.

"I should first mark his various and extensive learning, his modesty in the use of it, and philosophical distrust of human opinions in science, however sanctioned by time, or the authority of great names. I should then exhibit him in the exercise of his profession, without envy or jealousy; too proud to court employment, yet underrating his services after they were performed; unwearied, even when a veteran in his art, in ascertaining the minutest circumstances of the sick, who placed themselves under his care, taking nothing in their situation for granted that might be learned by enquiry, and trusting nothing of importance

that concerned them to his memory. To demonstrate his greatness of mind, I should next mention his repeatedly declining to accept those offices of honour and profit at the British Court, which are regarded by other physicians as objects of their highest ambition, and are therefore sought by them with the utmost assiduity. I should afterwards take notice of his simple, yet dignified manners, his piety to God, his love for his country, and his exemplary discharge of the duties of all the private relations in which he stood to society; and I should conclude, by observing, that his whole life had been regulated by the most exquisite prudence, by means of which his other virtues were rendered more conspicuous and useful; and whatever failings he might as a human being possess, were either shaded or altogether concealed. After my description was finished, I should think it proper to say, that I had never been acquainted with Dr. Heberden, and consequently could neither be dazzled by the splendor of his virtues, from approaching them too nearly, nor influenced in my opinion concerning them, by benefits he had already conferred upon me; and that standing, as he does, upon the verge of this state of existence, ready to wing his flight to another of glory, his ear must now be closed to the voice of flattery, had he ever listened to that syren, or were I base enough to solicit her aid, in the foolish expectation of receiving from him some future reward." 10.

A noble tribute to departing worth, a tribute drawn forth by Dr. Wells's opposition to that Old College of Physicians, of whose fellows Lord Kenyon supposed with great simplicity, Dr. Heberden a sample! He adorned the College, but he did not represent it. The spirit of bigotry, intolerance, and uncharitableness, which found its incarnation in that *old* Corporation, must be represented by other instruments than Dr. Heberden.

Dr. Heberden's earliest published work was a little pamphlet, entitled, ANTIOHPIAKA, in the form of *An Essay on Mithridatium and Theriaca.*

"The famous antidote to the baneful effects of poisons said to be possessed by Mithriadates, King of Pontus, is here shown to have been composed of the most simple ingredients: namely, twenty leaves of rue, one grain of salt, two nuts, and two dried figs. This is given upon the authority of Q. Serenus Samonicus, and is a very different composition to that named after the monarch, in the time of Celsus, which consisted of thirty eight simples, and these it appears were changed every century; so that the Mithriadatium of one period bore little or no resemblance to that of another. Dr. Heberden states, that the ancients were only acquainted with *three* kinds of poison—hemlock, aconite, and that of venomous beasts, and to these they knew no antidotes. The various effects of different substances may, probably, in the earlier ages have excited the apprehensions of mankind, and the ignorance of their nature may have given rise to the relation of miraculous stories regarding poisonous substances. Dr. H. very properly ridicules these accounts; such as the concealing of poisons under the stone of a seal or ring, as reported by Theophrastus, or by vapours arising from perfumed gloves or letters. Many modes of poisoning are mentioned, as having been practised by the Italians, among others that of poisoning the clothes. Ben Jonson, in his 'Every Man in his Humour,' puts the following passage into the mouth of the jealous Kiteley:

'Now, God forbid, O me, now I remember,
My wife drank to me last, and changed the cup;
And bade me wear this *cursed suit* to-day.'

These practices were not confined to Italy. Our own country shared the like, and we learn that Queen Elizabeth was in constant dread of being taken off in this way. Two men were hanged in 1598, for poisoning her saddle!" 10.

The Transactions of the Royal College of Physicians, known by the title of "Medical Transactions," were undertaken at the recommendation of Dr. Heberden. He contributed not only largely to the work, but some of the most valuable papers in it are his. It would seem that Dr. Heberden had *intended* drawing up a copious prefatory address. A sketch of that address remains, and its object was to recommend the study of nature, in place of the deference to authority which characterized the physicians of his and of former days. The following passage will be read with double interest:—because it contains some great and admirable truths—and because it shows that Dr. Heberden's mind was amply fortified with the bold spirit of the Inductive Philosophy.

"The deference which is sometimes required in physic to the authority of the ancients, would incline any one to suspect, that the improvements in the art of healing have not kept pace with those which have been made in other branches of natural knowledge. Philosophers have long ago thrown off Aristotle's tyranny; yet some physicians still choose to wrangle about the meaning of the ancients, rather than to consult nature herself. Are they afraid of approaching her immediate presence, without making use of the intercession of Hippocrates and Galen? And is that reverence to be still paid to her once faithful ministers, which is properly due to nature alone, notwithstanding all that Bacon, and Harvey, and Newton, and our other great reformers, have witnessed against this mistaken veneration? In works of genius the ancients are unquestionably our superiors and best patterns; but in that sort of knowledge which depends wholly upon experience, the latest writers must in general be the best.—Experience may, in politics and morality, be called the teacher of fools; but in the study of nature, there is no other guide to true knowledge; accordingly, the practice of physic has been more improved by the casual experiments of illiterate nations, and the rash ones of vagabond quacks, than by the reasonings of all the once celebrated professors of it, and theoretic teachers in the several schools of Europe: very few of whom have furnished us with one new medicine, or have taught us better to use our old ones, or have in any one instance at all improved the art of curing diseases." 12.

Mr. Pettigrew adds:—

"This opinion accords well with that given by Sir William Temple who says,—'I had ever quarrelled with their studying art more than nature, and applying themselves to methods rather than to remedies; whereas the knowledge of the last is all that nine parts in ten of the world have trusted to in all ages.'"

That such errors are not prevalent in our time is due in some degree to the free expression of these manly sentiments by men of Heberden's eminence. But our advance is still more owing to the cultivation of morbid anatomy. The facts which it has disclosed first sapped, then overturned, the laborious but unstable structure of empirical experience. The reverence for antiquity in science, so absurd in reason, so unfounded in fact, contradicted alike by wit and observation, is happily gone for ever. The Hippocratists and the Galenists, the Dogmatists and the Empirics of an earlier epoch, have disappeared with the doctorial wig and cane, fit emblems, the one of the dusty learning that it held, the other of the ponderous quarrels which that learning generated.

Dr. Heberden was the author of the following Papers in the Transactions of the College of Physicians:—1. Remarks on the Pump Water of London, and on the Methods of procuring the Purest Water; 2. Observations upon

the Ascarides; 3. Of the Night-Blindness, or Nyctalopia; 4. On the Chicken-pox; 5. The Epidemical Cold, in June and July, 1767; 6. Queries; 7. Of the Hectic Fever; 8. Remarks on the Pulse; 9. Some Account of a Disorder of the Breast; 10. Of the Diseases of the Liver; 11. Of the Nettle Rash; 12. An Account of the noxious Effects of some Fungi; 13. Queries; 14. Case of Angina Pectoris; 15. The Method of preparing the Ginseng Root in China; 16. Of the Measles. The remaining work of Dr. Heberden to be noticed was a posthumous one: Commentarii de Morborum Historia et Curatione.

Leaving this catalogue of his writings, we may inquire, with some degree of curiosity and interest, the character which his practice assumed. A man of great learning, attentive observation, large experience, and considerable natural abilities may be supposed to possess the requisites of a good practitioner. Let Mr. Pettigrew answer for his hero.

"In Dr. Baillie's life, I have endeavoured to account for the apparent inertness of his practice; the same observations will apply to Dr. Heberden. He seems to have had little confidence in remedies—more in Nature herself; and his practice was, therefore, mostly palliative. No analysis of this work can here be given; there is an index to refer to the subjects, which are arranged alphabetically, being preceded by some general remarks on Diet, and the *Ratio Medendi*. The volume concludes with the following reflection, which, if admitted to be correct, must render the prospect of improvement in medicine as next to hopeless.

'The art of healing has scarcely hitherto had any guide but the slow one of experience, and has yet made no illustrious advances by the help of reason; nor will it probably make any, till Providence think fit to bless mankind by sending into the world some superior genius capable of contemplating the animated world with the sagacity shown by Newton in the inanimate, and of discovering that great principle of life, upon which its existence depends, and by which all its functions are governed and directed.'" 18.

The latter passage would indeed, if well founded, tell indifferently, both for reason and for physic. But it must be taken with some degree of limitation, and it seems to be contradicted by another passage of Dr. Heberden's own.

"I please myself," he writes, "with thinking, that the method of teaching the art of healing is becoming every day more conformable to what reason and nature require; that the errors introduced by superstition and false philosophy are gradually retreating; and that medical knowledge, as well as all other dependent upon observation and experience, is continually increasing in the world. The present race of physicians are possessed of several most important rules of practice, utterly unknown to the ablest in former ages, not excepting Hippocrates himself, or even Æsculapius." 6.

The latter sentiments accord, we conceive, more exactly with the truth than the previous ones. The general proposition, that the science of medicine as well as the practical application of it, have not advanced with majestic strides, can be supported only by the hopelessly sceptical or the wholly ignorant. The more limited aspersion, that the progress of medicine has not been due in any material degree to reason is as vulgar a fallacy as ever composed a popular prejudice. Are the operations for aneurysm—the modern doctrines of the arrest of hæmorrhage—the laws and treatment of inflammation of the tissues, mere empirical experience? We cite these instances, because they drop almost spontaneously upon the paper. But even the cases

which seem to prove the case and plead the cause of empiricism best, make, when examined, conclusively against it. If accident discovers the utility of a medicine in a given case, it is reason and the experiments which flow from reason which subsequently determine the sphere of its influence and extent of its applicability. To refuse then to reason the lion's share in the present science of medicine, betrays a total want of reflection, or of common sense. We have no patience with this vulgar calumny on physic—begot by an over sceptical mind, and greedily received by those who are unwilling or unable to become thoroughly acquainted with it.

On the whole, it is impossible to read the life of Heberden without arriving at the conclusion that he possessed those qualities calculated to ensure a physician success—mild manners, pure morals, a benevolent heart, a cultivated mind, and a solid, though not a brilliant understanding.

The life of JOHN CHEYNE, M.D. Physician General to the Forces in Ireland, a man only lately taken from us, presents some features of interest.

John Cheyne was born on the 3rd of February, 1777, at Leith. Many members of his family were of the medical profession. His father practised medicine and surgery, and was a man of great cheerfulness, benevolence, "good sense," and singleness of mind. His family had espoused the cause of tyranny in the person of the Stuarts, and suffered in *pocket* for their pains. After passing four years at the grammar-school of Leith, young Cheyne was, in his tenth year, sent to the High School of Edinburgh, and at once placed under the care of Dr. Adam, the Rector, or Head Master, for whose class he was in no respect prepared. In consequence of this ill-advised step, he is reported to have been, in general, very unhappy while at the school, being unable to keep up with many of his companions, and he often feigned sickness, and submitted to take medicine that he might be kept from school.

Soon after he left the high school, he was placed under the tuition of a clergyman of the Episcopal Church of Scotland, a good scholar, but a foolish and dissipated man: both master and pupil had more relish for talk than for Homer or Virgil; and as he did not exact careful preparation, young Cheyne was seldom prepared, so that, although he went to him daily, for two years, little was added to his stock of Greek and Latin. Thus Cheyne appears to have been a graceless idle lad, and the "good sense," of parents who could not manage him better, must have been of a very questionable character.

Mr. Pettigrew proceeds:—

"In his 13th year, he began to attend his father's poor patients. He was sent to ascertain that they were supplied with medicines, to bleed them, to dress their wounds, and report upon their condition. In this way he obtained an early acquaintance with diseases, and his after success in treating them seems to have arisen in a great measure from his knowledge of their characteristic expression, rather than from any other qualification he possessed. Before he had reached his sixteenth year, he had began to attend medical lectures, in the University of Edinburgh. Dining at a boarding-house every day, with several medical students, who were qualifying themselves for the Doctorate, he found that he was as well acquainted with medical subjects as most of them, and therefore he resolved upon presenting himself to the professors, when they did. By frequenting a club of students, of which the members alternately examined each other in anatomy, physiology, theory and practice of physic, &c., and by the

assistance of Mr. Candlish, a celebrated grinder of that day, his superficial knowledge of Latin and of medical science was made to answer the end in view, and he passed his examination without difficulty, and obtained a medical degree in June 1795.

On the day after his graduation, (having previously procured a surgical diploma,) he left Edinburgh for Woolwich, the head-quarters of the Royal Regiment of Artillery, to which corps he had been appointed one of the assistant surgeons. He served in various parts of England, till the end of 1797, when he obtained the local rank of surgeon, and accompanied a brigade of horse-artillery, under Lieutenant-Colonel Howorth, to Ireland. With part of that brigade, commanded by Lord Bloomfield, he was present at the actions with the rebels, which took place at Ross, Vinegar Hill, &c., in 1798.

While he was assistant surgeon and surgeon in the Artillery, from 1795 to 1799, his time was spent in shooting, playing billiards, reading such books as the circulating library supplied, and in complete dissipation. He studied nothing but the manners of his superiors, and learnt nothing but ease and propriety of behaviour; happily, however, at last, he became dissatisfied with his prospects, felt anxious to distinguish himself in his profession, and was conscious that unless he made a strenuous effort without delay, he must be content with a subordinate station which his vanity would not have permitted him tamely to occupy: he, therefore, in 1799, left the horse artillery and returned to Scotland, resolved once more to become a medical student. On his return he was appointed to the charge of the Ordnance Hospital in Leith Fort; and he undertook to act as his father's assistant, whose practice, especially among the poor, was very extensive. He selected, for study, the best cases from those which fell to his lot in a division of the business of the day. These cases he journalized; and when he foresaw that a disease would end unfavourably, he took measures to insure a necroscopic examination. At this period he happily formed a friendship with Mr., now Sir Charles Bell, who, then particularly occupied with the study of pathology, was laying the sure foundation of the highest professional eminence. Sir Charles opened most of the bodies which Dr. Cheyne obtained permission to dissect, taught him many things which he might not otherwise have learned, and confirmed his taste for distinction. As an example of diligence in study, Sir Charles could not be excelled; and it was already manifest that he was a man of great originality of mind." 3.

Dr. Cheyne's earlier career would, at first sight, appear exceedingly ill calculated for professional distinction or for professional success. But both, and especially the latter, turn mainly on tact and practical knowledge. Young Cheyne's career was by no means unlikely to teach him something of each. In the society of Artillery officers, he acquired that ease of manner and acquaintance with "the world," useful to him who intends to make "the world" support him; while his early attendance upon *patients* could not fail to render him quick in reading symptoms, as well as prompt in treating them. Knowledge of this kind could not be obliterated even in the shooting-gallery or the billiard-room; and when study added the science that was wanting, the requisites for success were nearly complete.

The object which had now broken on Cheyne's view was pursued with the steadiness of a man of strong sense, confident of his own powers, and determined to turn them to account. He, very probably, felt like Sheridan, after his maiden speech. That was a palpable failure, and most men would have despaired. Not so Sheridan. "By G—d," said he, "it's in me, and it shall come out." If Cheyne did not say this, his conduct proves that he thought something very like it. Observe how he went to work.

"Dr. Cheyne resolved, whenever he should think himself fit for the undertaking, to attempt to establish himself as a physician in a large city, and in the meanwhile to devote every leisure hour to the necessary preparation. His attention was accordingly directed principally to those diseases which he had the fullest opportunity of studying—to the *diseases of children, acute diseases and epidemics.* When a well-marked case of disease occurred, or when an an epidemic arose, he obtained the best monograph he could on the subject, and attentively compared the information which it contained with the opinions of the most experienced of his professional brethren, whom he had frequent opportunities of meeting; and then he filled up his case-books; thus, by means of observations, reading and the experience of others, his mind was made up on the most important points of practice, and with decision he acquired a facility of prescription in acute diseases, which proved of great advantage to him, especially in dispensary practice. With respect to chronic diseases, in addition to the assistance he derived from books and observation, he obtained aid from a mass of consultations, many of them written with great care, by the most eminent physicians in Edinburgh, during the middle and end of the eighteenth century, which had been preserved by his granduncle, father, and grandfather Edmondston. Dr. Cheyne endeavoured to become acquainted with the character of those who had obtained the highest rank in the profession of medicine in Edinbugh, to discover the causes of their success; and he ascertained, that although a man might acquire popularity by variety of means, he could not reckon upon preserving public favour, unless he possessed the respect of his own profession; that if he would effectually guard his own interest, he must, in the first place, attend to the interests of others; hence he was led carefully to study, and liberally to construe, that part of medical ethics which regulates the conduct of physicians towards each other.' 4.

We have always been of opinion that success was never attained in our profession, without much merit and great exertions of some sort. The merest court physician who ever prescribed a gently medicated dram, neither got nor kept his place without some outlay of cleverness. Many who afterwards saw Cheyne rapidly reaching a large practice, may have wondered at his luck, envied his fortune, and denounced the blindness of public favour. But had they, whom he beat in the professional race, adopted the same means for securing victory? Did they go upon the course so sagaciously trained as our readers may see that Cheyne was? We will venture to say that the disappointed men of that day had not worked so hard, or so judiciously for the envied fees, as the man whose "itching palm" clutched and had so tingled for them.

Edinburgh has been long as famous for medical quarrels as for science. Whether it be the natural sharpness of the air, or the diet, or the circumstance of so many doctors being pent up in so small a space, certain it is that they are wonderfully given to fight. Pugnacity is almost as striking a characteristic of the surgeons as of the terriers of the town.

During Dr. Cheyne's residence in Scotland, one of these numerous *rows* occurred. Dr. Gregory was the occasion of it, and the "rancour" evinced towards him made such an impression on Cheyne, that he wisely resolved to avoid professional disputes; and to suffer injury rather than attempt to right himself, unless his moral character was likely to be endangered by forbearance. This is an excellent rule, which will be praised by many and acted upon by a few. We proceed with Cheyne's career.

After passing nine years, continues Mr. Pettigrew, in the study of pathology and in the practice of medicine, he resolved upon quitting Scotland, and

instituted inquiries in several parts of England without discovering any situation which promised to suit him. He was anxious rather for an opportunity of distinguishing himself than of securing a large income; and with that view he offered his services to the late Dr. Rollo, surgeon-general to the Artillery, who, some years before, wished to establish a school of clinical medicine at Woolwich, for the instruction of the medical officers of the Artillery, then a numerous body. He proposed to give clinical instructions to the junior officers of the establishment, and all he asked in return was the rank and allowances of physician to the forces; but his application came too late—disappointment and disease had quenched Dr. Rollo's zeal for the department over which he had some time before presided with great ability; and Dr. Cheyne never received an answer to his application.

About this time he received a very particular account of the state of the medical community in Dublin, which probably made the deeper impression on him, as it came from one who was not aware of his intended removal from Scotland. He immediately prepared himself for a visit to Dublin, whither he went in the latter end of March, 1809, leaving Mrs. Cheyne in Antrim, with her father, the Rev. Dr. Macartney, vicar of that parish. He soon determined upon remaining in Dublin, in which he found the profession of medicine duly respected. This was chiefly attributable to the eminence of the physicians in that city, during the preceding fifty years; Dr. Smith, who was brother to the Archbishop of Dublin, remarkable for his munificence, Sir Nathaniel Barry, whom Mr. Grattan once characterized as the most accomplished gentleman he had ever known, Dr. Quin, Dr. Plunkett, the witty, accomplished and amiable brother of the Lord Chancellor, and Dr. Perceval, distinguished for scientific knowledge, but more so for his philanthropy. Moreover, the memory of Macbride, Cleghorn, and Perceval, was still cherished by many. Dr. Cheyne soon found that the field was extensive, and the labourers liberally rewarded. The physicians then in the confidence of the public were mostly of the school of Cullen—they were possessed of good general information, but relied chiefly on their symptomatology; they had paid but little attention to morbid anatomy. Much of the pure medical practice of Dublin was passing into the hands of the surgeons, who were better acquainted with the nature and tendency of organic lesions. Being well informed on the subject of acute diseases, and having acquired a taste for pathology under Sir Charles Bell, Dr. Cheyne was well prepared for fair competition.

In the latter end of 1809 he took his position as a candidate for public favour in Dublin, where he had passed the Summer; neither expecting nor indeed wishing for rapid advancement. What is easily acquired is little valued and often soon lost. He had a few friends who were much dissatisfied with his apparent apathy, and the obscurity in which he lived; who wished him to go more into company, and even to give entertainments to those who had it in their power to advance his interests; and so much was he urged by his friends to this course, that at last he reluctantly yielded to their importunity; but, as his circumstances did not permit of his providing entertainments with comfort to himself, he refused to repeat the injudicious experiment. True it is, that his friends could derive little encouragement from his apparent progress during the first two years of his sojourn in Dublin—from the 9th November, 1810, to the 4th of May, 1811, a period

of nearly six months, he received only three guineas; but then he felt that prejudices against him were giving way, and that he began to be regarded with good-will by some of the most respectable of his brethren, who, in the latter end of 1811, procured him the situation of physician to the Meath Hospital.

We have extracted these particulars, because we think that they read two important lessons:—first, that a man who aims at success in the practice of medicine, should prepare himself for *possible* opportunities and occasions —must work with no immediate prospect of recompense, perhaps without any clear conception of what he is to do with his knowledge when he gets it; secondly, that, when a man is well prepared, he must not be discouraged at practice coming slowly. We will venture to say that few who have succeeded in our profession have jumped at once into large business. We do not see how, in most instances, that is possible. The confidence of the public is already enjoyed by eminent predecessors. They must secede before the turn of others comes, and such secession implies the lapse of time. Popularity in medical practice got upon the instant is generally the result of whim, of fashion, of some fleeting impulse, which will probably go as it came. If a man, qualified for eminence, makes but three guineas in the first six months, that is no guarantee of success certainly, but experience has proved that it is no indication of failure.

We left Cheyne physician to the Meath Hospital. About this time the directors of the School of Surgery in the Irish College of Surgeons thought it expedient to add to their other professorships, one of the practice of physic. Dr. C.'s attendance on the Meath Hospital procured his election to this office. His lectures at the College of Surgeons, which were very full on the subject of military medicine, were attended by nearly all the surgeons and assistant-surgeons in the garrison, to whom they were free. He delivered five courses of these lectures, and this, with his attendance at the hospital, *and* his private practice, (for practice was now coming,) fully occupied his time.

In October, 1815, he was appointed by the Lord-Lieutenant, one of the physicians to the House of Industry, which lay at the distance of two miles from his house. There he had to visit upwards of seventy patients, in acute diseases, daily; most of these had fever, of which probably eight or ten demanded careful examination. He resigned his professorship at the College of Surgeons, as well as his charge at the Meath Hospital. In 1816, his private practice yielded him 1710*l.*—a not inconsiderable sum for a physician to make in the sixth year after his debut.

Cheyne and Dr. Edward Perceval endeavoured to form a clinical school and a museum of morbid anatomy at the House of Industry. The design proved abortive, but the Dublin Hospital Reports sprang from its ashes.

Upon the death of Dr. Harvey, Physician-general to the Army in Ireland, he applied, without success, for his situation. There were several applicants, whose claims the Lord-Lieutenant found it not easy to adjust, and therefore he escaped from the difficulty by appointing Dr. Perceval, who had not applied for the vacant office; but who, in point of character and professional rank, had a better title to the situation than any of those who were candidates for it. Dr. P. accepted the office, on condition that the Lord-Lieutenant would permit him to have an assistant in the duty of attending the

general military hospital. Dr. Cheyne was applied to by Dr. Perceval to assist him in his hospital charge: and, in order to comply with his wishes, Dr Cheyne thought it necessary to resign his appointment in the House of Industry. Dr. Perceval, however, soon resigned his office, upon which Dr. Cheyne was appointed to succeed him by the Earl Talbot, then Lord-Lieutenant of Ireland. His patent bore the date of Oct. 7, 1820. The situation of physician-general, which was abolished in the end of 1833, was conceived, when Dr. Cheyne obtained it, to confer, on the possessor, the highest medical rank in Ireland; and, as his practice then yielded him about 5,000*l* (which was its annual average during ten years), he felt that he had fully obtained the object of his ambition.

We have followed Cheyne in his march up hill—we see him at its summit—we are to see him going down. Such are the objects of human desires—sought with avidity—obtained with difficulty—enjoyed with disappointment—and often in themselves the source of irreparable evils. Success in a profession now-a-days has entailed and entails such labour on its possessor, that few who know its real nature can envy it. Success means wealth and eminence, bought with the sacrifice of all healthy recreation, both of body and of mind. The daily toil is relieved only by the nightly anxiety, and, worn by almost uninterrupted exertion, the fortunate man is deprived of most of the social pleasures of life, and debarred from indulgence in its most cherished affections. He acquires property, loses his health, and often leaves the wealth of his industry to be squandered by children whom it demoralises.

Remark Cheyne at the top of his wishes. Let his biographer paint him for us in that happy situation.

His constitution, naturally weak, was always injured by fatigue of body or anxiety of mind. Hence, before long, he was obliged to circumscribe his practice, by refusing to go to a distance from Dublin, or to undertake attendances in the country. He was more generally employed as a consultant than as an attendant physician, and to this line he chiefly adhered. But in the end of the year 1825, when he was about to enter into his forty-ninth year, a period which is often critical to those who are engaged in anxious business, he became affected with a species of nervous fever. In the Autumn of that year, dysentery proved fatal to many of the inhabitants of Dublin. Disappointment often attended the means which were employed for their relief, and a pretty constant depression of his spirits was the consequence of unsatisfactory practice; at the same time, his mind was harassed by anxieties not connected with his profession. He became so weak, that he was unable to dress in the morning till he had had coffee, and when he returned from a day of toil, at seven or eight o'clock in the evening, he was obliged to go to bed, to obtain rest, before he was able to dine. After a struggle of two months, he repaired to England, and recovered some strength, and thought he was again able for business, to which he returned too soon. On his arrival in Dublin, he found one of his professional friends, the father of fifteen children, labouring under a disease, which proved fatal, expecting Dr. Cheyne's return, that he might put himself under his care. The sufferings of this patient proved an incubus on Dr. C.'s spirits, which strangled every cheerful thought. He now began to comprehend the nature of his own illness, namely, that a climacteric disease, what physicians, in former

times, termed a nervous atrophy, was forming, which slowly, though surely was effecting its appointed mission. By relaxing as much from care as he could, sleeping out of town, attending to regularity of meals, getting an experienced medical friend to prescribe for him at the Military General Hospital, and confining himself there to the duties of inspection, the progress of his illness was retarded, and he continued in Dublin till the beginning of 1831, when medical practice at last proved an intolerable burden. "The vigour of the mind decays with that of the body, and not only humour and invention, but even judgment and resolution, change and languish with ill constitution of body and of health."* His sleep was broken and unrefreshing; in the morning he was languid and dispirited; and in the evening, he had a high degree of nervous fever He resolved therefore to relinquish business, when, to all appearance, ill health alone prevented his retaining it undiminished. Upon his retirement from Dublin, he was addressed by the physicians, the surgeons, and the apothecaries of the Irish metropolis. The addresses expressed, in the warmest terms, the sentiments of esteem they entertained for his private virtues, and the respect they felt for his professional character—deeply deplored the necessity of his retirement, and ardently hoped for his recovery—hopes never to be realized.

Cheyne sought a quiet English village, and found it in Newport Pagnell in Buckinghamshire, where he had purchased an estate in 1829. But the retirement of a physician is seldom absolute. It is one distinctive feature of our philanthropic profession, that the ability to exercise it with benefit to our fellow-creatures ends only with the total prostration of our powers. When the acquisition of wealth has ceased to please or to be requisite, we have it in our power to assuage human miseries unfettered by the considerations of self-interest, and unsuspected of its bias. How much must the decline of life be sweetened by the gratuitous employment of our medical skill. The eminent physician, occupying his sickness or his age in ministering to the bodily afflictions of the poor, is surely a spectacle worthy of the admiration of gods and men: and such a spectacle was presented by Cheyne.

Three mornings in a week, he went to a neighbouring cottage, and saw the sick villagers, giving them advice, and dispensing medicines, which were prepared in his family; thus, many an attack of illness was nipped in the bud, and much suffering was lessened. On a fourth morning, the sick came to him from distant parts of the country, for whom he prescribed: and, as there was no physician within twelve miles of the post-town nearest his house, he was occasionally consulted by some of the more respectable families in the neighbourhood. Surely a profession which admits of this has some claims on the respect of men.

Cheyne felt that he owed a duty to that profession, as well as to the general interests of humanity. Wealth and distinction acquired in a profession are to be regarded in some degree as trusts held for its benefit. The man who by it has obtained those objects of human ambition, must feel that he owes something to a science which has enabled him to turn his talents to so good account. No man should let the fruits of his experience rot with him.

---

* Sir William Temple.

They are an offering which he is bound to make upon the shrine of knowledge, a votive tablet hung like the records of the cases in the temple of Esculapius, to signalize his own escape from disasters, and to thank the gods for their protection.

Cheyne entertained this feeling. Something may, perhaps, be laid to the score of a mind,—

which, working out its way,
Fretted the pigmy body to decay,

uneasy at the forced inaction of the body, and carving out for itself a sphere of action. Yet, allowing all that the most peevish cynicism could justly ask, there must have been a vein of noble feeling in the breast of Cheyne. He wished, his biographer tells us, to prove that he still retained an interest in his profession, even after it had ceased to yield him emolument; and, therefore, he gladly undertook to write some articles for the Cyclopædia of Practical medicine, in compliance with the request of Dr. Tweedie, one of the editors of that work. He was thus again led to the use of his pen, and began to extend his enquiries to other subjects, recollecting and recording facts and reasonings, which, in the hurry of business, he had almost let slip But Fortune had bestowed her last smile on Cheyne, and his closing years were to be darkened by deprivations most keenly felt by those who have led a life of intellectual activity. A cataract formed in his right eye in the beginning of 1833, which deprived him of the use of that organ. His left eye became dim, and his strength altogether so much exhausted, that he was obliged to relinquish any further pursuit in his profession. His frame now gradually verged towards decay; four months prior to his decease, a mortification of one of his feet took place, and he sank on the 31st of January, 1836.

The opinion entertained of Cheyne by his contemporaries may be gathered from a short biographical sketch of him, contained in the Dublin Journal.

To speak of Dr. Cheyne's writings, and of the estimation in which they are held, would be superfluous. Whether viewed with reference to the elegance of their style, or the sound practical precepts and improvements which they inculcate, they hold a foremost rank among the medical works of the day. No man ever maintained, in the circle in which he practised, more respect and confidence from his professional brethren, or a higher character with the public as a skilful physician. In consultation, he displayed a penetration in the diagnosis of disease, and a readiness and sincerity in the communication of his experience in similar cases, which never failed to secure the confidence of the practitioner, at whose recommendation he had been called to the attendance. He had, moreover, the enviable quality of observing the most honourable conduct toward the gentleman in attendance with him, without a compromise of the duty which he owed to the invalid; he directed the treatment, without arrogating to himself any merit for its success: and assisted the efforts of his junior without lessening towards him the confidence of his patient. Dr Cheyne's punctuality to appointments was another feature in his character, which rendered professional intercourse with him peculiarly satisfactory; and even in the days of his most varied and extensive practice, he treated the youngest member of the profession with the same polite consideration, in this particular, as the oldest."

"His exterior deportment bore appearance of indifference to the afflictions which were every day presented to him; but his inward feelings on those occasions were at variance with the impressions left by those visits. His mind was

frequently disturbed, and his spirits depressed, by the scenes of bodily and mental suffering, which the practice of his profession incessantly brought under his notice; and his sympathies, instead of being blunted by the habitude of meeting with such objects of compassion, were rendered more acute by the repetition.—Indeed, to this source may be traced the seeds of the malady under which his constitution otherwise a good one, finally broke down." 10.

Mr. Pettigrew adds:—

"Dr. Tweedie has confirmed this statement to me; and, as an evidence of Dr. Cheyne's sensitiveness, says that he once told him, he had that day seen thirteen patients, all of whom were moribund, and that he therefore did not expect any of them to be alive on the morrow. This, he said, was too much for him—he was unable to bear it, and he determined to fly from such scenes of hopeless and helpless affliction." 11.

It would not be right to close this notice without an enumeration of Cheyne's writings. The following are the heads of the Essays or the Papers that he published:—

1. An Essay on Cynanche Trachealis.
2. On the Bowel Complaints more immediately connected with the Biliary Secretion, and particularly of Atrophia Ablactatorum.
3. On Hydrocephalus Acutus, or Dropsy of the Brain.
4. On the Pathology of the Membrane of the Larnyx and Bronchia.
5. Cases of Apoplexy and Lethargy: with Observations upon the Comatose Diseases.

In the Dublin Hospital Reports, Cheyne published the following ten papers:—

6. Report of the Hardwicke Fever Hospital, for the year ending on the 31st March, 1817; A Case of Melæna, with Observations on the Alternate Excess of Morbid Action in the Mucous and Serous Membranes; Of Jaundice, unaccompanied by any discoverable disease of the Liver, or turgescence or obstruction of the Biliary Ducts; On the Virtues of James's Powder in the Apoplectic Diathesis; Report of the Hardwicke Fever Hospital, for the year ending on the 31st March, 1818, including a brief account of an Epidemic Fever in Dublin; Case of Apoplexy, in which the fleshy part of the Heart was converted into fat; Report of the Whitworth Hospital, containing an account of Dysentery, as it appeared in Dublin in the latter end of 1818; with a brief account of that disease, as it appeared in Limerick in 1821; Medical Report on the Feigned Diseases of Soldiers; Case of a Fatal Erethism of the Stomach, with Observations; On Small and Frequently-repeated Bleedings in Hæmoptysis and Incipient Phthisis.

Cheyne contributed two Papers to the Edinburgh Medical and Surgical Journal.

1. A case of Bronchial Polypus.
2. Observations on the Effects of Purgative Medicines.

There are five articles from his pen in the Cyclopædia of Practical Medicine.

1. Croup.
2. Epilepsy.
3. Epidemic Gastric Fever.
4. Laryngitis.
5. Wakefulness.

Cheyne's life appears to us to derive its main interest from the lesson it reads on the mode of obtaining success in the profession. Without very brilliant talents—without very powerful friends—without any striking piece of good fortune, Cheyne reached eminence and acquired a large income. That he did so, was clearly owing to his having devoted his attention to *practical* studies, and directed his aims to *practical* attainments. He adopted those means which plain good sense and a clear head would indicate as likely to answer, and they did answer.

RESEARCHES ON THE DEVELOPMENT, STRUCTURE, AND DISEASES OF THE TEETH. By *Alexander Nasmyth*, F. L. S. F. G. S. Member of the Royal College of Surgeons, London, &c. &c. 8vo. pp. 165. London, 1839.

WE need not, at this time of day, indulge in a disquisition on the uses of the teeth, nor on the importance, not to say necessity, of being acquainted with their structure, in order to understand thoroughly their diseases.

Mr. Nasmyth, the author of the work before us, is a gentleman much esteemed by those who have the pleasure of knowing him, and distinguished for the zeal and ability with which he cultivates dental surgery. The volume before us is but the commencement of the work which Mr. Nasmyth promises, and of which this bears the title. We have here only the introduction to the whole—the part which contains the anatomy and physiology of these organs.

It may seem surprising to such of our readers as are out of the pale of the anatomical and physiological inquiries of the day, that 165 pages of close letter-press should be dedicated at the present time to such a subject. But the researches of minute anatomy are endless. While fresh enquirers are to be got, fresh discoveries will assuredly be made. The microscope has the brilliant advantage of allowing the most discursive ranges of fancy, and *its* field has a boundless horizon. The microscopist of France sees something very different from what is visible to the ken of him of England, and the German porer upon glasses looks, of course, much farther than either. The only standard that we can conceive able to settle disputes, is an Act of Parliament, and the attention of the Legislature ought really to be called to it. Lecturers and Journalists are much to be pitied. They *get up* some piece of minute anatomy one season, the last, the finest, and the best. But before the next year arrives, some new microscope or microscopist has come out, the last discovery is pronounced mere moonshine, and the fresh one is to be rehearsed, and performed to the gaping audience, with the same fate before it as overtook its predecessor. This is too bad.

"The Historical Introduction," observes Mr. Nasmyth, "with which the present work commences, occupies a much larger space than I at first intended to allot to it: its length is owing to the variety and importance of recent investi-

gations in this department of science, conducted principally by Swedish and German anatomists. It still, however, might have been enlarged in that part which treats of old writers; but I have been induced to omit many of their statements, as being more curious and fantastic than practically valuable; the labours of many modern writers of ability might also be added to it, but not with much advantage. From the very commencement of it the reader will be struck with the conflicting nature of the evidence which it contains on even the most elementary points. I am inclined to think, however, that these discrepancies have not their origin so much in absolute error, or in defect of observation, as in the constantly varying condition of the parts which have been described, and in the diversity and imperfection of the means which have been used for their examination. Without recurring to such an explanation as this, it is impossible to conceive how such men as Hunter, Cuvier, Bichat, and Blandin, for instance, can often flatly contradict each other. Those who have hitherto published the results of their experiments in this department of anatomy, have, for the most part, omitted to give an account of their methods of investigation, and of the species, age, &c. of the subjects which have been submitted to examination; thus rendering it impossible to test the accuracy of their facts, and to discover the source of fallacy either in the new views, or in those which had hitherto been current.

I have endeavoured to conduct my investigations on a scale which I conceived commensurate with the importance of the subject; and in detailing the results which I have arrived at, I shall give as careful a description as possible of the nature of the experiments, dissections, or observations which led me to them. The substance of what I have to offer will go to prove, I think, a greater degree of simplicity and uniformity, than has hitherto been suspected in the organization of these structures." *Pref.* x.

Mr. Nasmyth proceeds to remark on the wonders elicited or created by the microscope, in modern hands, and he adds:—

"In 1837, I learnt that Professor Betzius of Stockholm had published a very interesting series of microscopic investigations on the structure of the teeth, and I then made every exertion to obtain his publication, but without success. I first saw it in April 1838, when I was favoured with a loan of it, by my learned friend, Dr. Grant.

The interest excited by the new views of this intelligent and industrious Swedish physiologist, induced me to resume a course of investigations on all the points connected with the structure of those organs, and I immediately announced my intention of publishing on the subject, and pursued my investigations with assiduity. Not less than five years ago, I made many observations on the structure of the teeth, and saw at that time their striated appearance; but being unable satisfactorily to explain this, and knowing that it had already been recorded by Cuvier, I did not attach sufficient importance to it, as it did not then seem to me to be likely to lead to any practical results. My observations were shortly afterwards interrupted, owing to the imperfections of the microscope which I then used, and to the difficulty I experienced in making suitable sections of the teeth.

I did not at first intend to publish the whole of Retzius's account of the tubular system in different animals, but I at length determined to do so, as I found that it could not be divided without injury to the whole, and that, moreover, I should frequently be compelled to refer to almost every part of it.

Those who contemplate the teeth merely as ornaments, or consider them in no other light than as the active agents at a feeding trough, or as the formidable weapons of the wild tenants of the forest, will, doubtless, regard the details of Retzius as irksome and tedious; but he who with ardour and admiration tracks

the steps of Nature through the regions of Zoology, will welcome with delight a full description of these new researches; he will recognise at once their importance, and cannot fail to be struck with the unostentatious manner in which a great mind has opened to the world a new field of exertion, foreseeing its value to the student of Geology as well as of Natural History. But I have been still further induced to publish the researches of Retzius, from having myself made numerous observations and experiments on the same subjects, which I hope will be found to illustrate some of them, and to carry out others to very interesting and original conclusions.

The importance of the study of Odontology in a zoological and geological point of view, has induced me to form as complete a collection as possible of microscopic preparations of the teeth of the various classes, both living and extinct, of the animal kingdom. From these I intend, in the course of the present work, when treating of the structure of the teeth, to make a selection calculated to serve as an index of the type of any animal. This part of the work I think will prove of much use to the Geologist, in enabling him to state to what class of animal any tooth, or fragment of tooth, belongs." xiii.

Our readers are in possession of the objects of Mr. Nasmyth, and may guess our own, in introducing him. A short time back, we presented a pretty copious account of the work of M. Blandin, on the Anatomy and Physiology of the Teeth, and in bringing our account of both up to Mr. Nasmyth and the present time, we but redeem our pledge of keeping pace with information, in its advancing or its dodging march. We shall endeavour to combine precision and brevity in our notice of the copious pages before us.

We may remark more particularly, that this is but the "historical" Introduction, that is, presents us only with an account of what Mr. Nasmyth's predecessors or contemporaries have effected. It is reserved for future Parts, to inform us of the "development and structure" of the teeth, and to offer, we presume, the digested labours of Mr. Nasmyth himself.

We know not how we can better exhibit *in petto*, the plan and arrangement, and, we might almost say, the contents of the work, than by quoting the author's own tabular view of them. Its copiousness will hardly be disputed. Here it is:—

Mention made by HERODOTUS of Egyptian dentists—Views of HIPPOCRATES on the structure of the teeth—Opinions of ARISTOTLE, of ARETÆUS, of PLINY—Progress made by GALEN, who describes these organs as bones—Details on this subject by AETIUS, RHAZES and ABULCASIS—Writings of VESALIUS and EUSTACHIUS—Doctrines of AMBROSE PARE, of SCALIGER and KERKRING—New views promulgated by MALPIGHI, and comments upon them by RETZIUS—LEEUWENHOEK's announcement of the discovery of tubes in the tendal bone—MALPIGHI on the fibres of the enamel—DUVERNEY on the developement of the teeth—WINSLOW on the enamel—BERTIN--HERISSANT's paper on the formation of the enamel, and on the organisation of the gums—JOURDAIN on dental developement—Opinions of HUNTER, physiological, pathological, and practical: singular resemblance on some points between him and AMBROSE PARE.

Commencement of the modern anatomical era—BICHAT on the teeth—BLANDIN. Works which have been published on the teeth in Great Britain during the present century—Essay of Dr. BLAKE—Work of Mr. FOX—of Mr. BELL, &c. Consideration of the French school resumed—G. CUVIER,

"Sur les ossemens fossiles"—SERRES' views—F. CUVIER's work on the Teeth of the Mammalia—ROUSSEAU's Comparative Anatomy of the Dental System. Modern German writers on this subject—WEBER in HILDEBRAND's Anatomy—SCHREGER and WAGNER. Views of various writers on the structure of the ivory—G. CUVIER on the enamel—HUNTER, TENON, and CUVIER on the *crusta petrosa*.

Recent researches on the structure of the teeth—PURKINJE and MÜLLER on the tubes in the dental bone and on the fibres of the enamel—RETZIUS' microscopical researches on the structure of the ivory, enamel, and crusta petrosa in the teeth of mammalia, reptiles, and fishes—His summary and physiological conclusions—Mr. OWEN's paper read at the British Association.

Recent researches on the developement of the teeth—Mr. GOODSIR's paper in the Edinburgh Medical and Surgical Journal—ARNOLD on the dental follicle—Original and historical details of VALENTIN—RASCHKOW on the origin of the dental follicle—on the enamel-organ—on the dental germ—on the formation of the enamel—on the cement—on the alveolar membrane—on the developement of the gum.

Retrospective review and summary of the present state of information. State of the questions concerning the origin of the dental follicle—concerning the capsule itself—the osseous nature of the teeth—their vascularity—their composition and structure. Reflections on the evidence adduced in favour of the existence of a tubular system—Erroneous views of MÜLLER on the crusta petrosa—On the admission of a fourth substance as entering into the composition of the teeth—Concluding remarks on the methods of conducting experiments on the organs.

Our main intention being to lay before our readers the results of the more recent and esteemed investigations, we shall proceed at once to Purkinje, Müller, and Retzius.

1. STRUCTURE OF THE TEETH.

A. *Purkinje's and Müller's Observations.*—The researches of Purkinje have been given to the world, in a dissertation by one of his pupils, V. Fraenkel.

The Ivory.—Purkinje states that the substance of the tooth and the enamel have a near similarity to the structure of bone, but on the outer surface of the root, he says, that there is a layer of true osseous substance, in which, at any rate, may be seen the osseous corpuscula which he has discovered.* This same structure he has discovered in the cement of the teeth of several animals. The proper dental substance examined in thin polished lamellæ consists of a uniform structureless (*structurlos*) substance, and of fibres passing through it. These latter run in parallel lines from the outer to the inner surface of the tooth, obliquely in some places, straight in others; they are in every part nearly of the same size, and communicate by but few

* Müller states that he has had frequent opportunities of confirming these results.

branches with each other. Though they are very thickly placed, still the structureless intermediate substance forms the greater part of the mass of the tooth: as their diameter he gives one-fifth or one-sixth of the space between two of them. He has also discovered that these fibres are tubular, and that in the teeth of the horse, at any rate, they are capable of absorbing ink by capillary attraction—a fact which is also confirmed by Müller. Purkinje does not pretend to pronounce on the contents of the tubuli. But Müller helps him out.

The latter affirms that they, or parts of them are filled with inorganic, calcareous salts. He says that when the light falls on fine polished lamellæ of dental bone, the white colour of the tooth is soon seen to be owing to these tubes or fibres, and that the intermediate substance is more transparent; moreover, that when such sections are submitted to the action of an acid, the white colour of the fibres disappears, the remaining cartilage still presenting tubes in their interior, which, however, when dried, are no longer white. He saw in healthy as well as in carious teeth, that in parts of these tubes something was contained.

Linderer, continues Mr. Nasmyth, who has long been engaged in researches on healthy and decayed teeth, has observed, that the dental substance in the latter (even where the enamel only is affected) loses its colour in several parts between the carious spot and the internal cavity. As this is nearly always the case, it is evident that an alteration in the substance of the tooth must be produced by the superficial caries. In fine polished sections of such teeth, Müller could easily see with the microscope, that where they were become transparent, a crumbly substance was contained in parts of the tubuli, and that this substance was more coherent in the tubuli of the white tracts; by adding diluted acid, he also observed under the microscope that this crumbly substance was dissolved. He has often performed this experiment with the same result on fine polished slices of healthy teeth, In these he found individual fibres, frequently in considerable number, on which were dark spots following close on each other.

The result of these and some other observations is, *that* the tubes have an organised basis, a membrane, and that this in the solid tooth is stiff and brittle, and probably saturated with calcareous salts, but weak and soft in the tooth which has been deprived of the latter—and *that* the calcareous salts exist not merely in the tubuli, but also in the intermediate substance, which contains, at all events, the greater part of the calcareous earth, either chemically united with the cartilage, or deposited in it in an invisible manner.

The interior of the roots of old teeth consists, according to Purkinje, not of dental substance, but of bone properly so called, as does also the deposit on the external surface of the root, and this statement is confirmed by Müller.

Our readers are aware that many anatomists class the teeth with horny rather than with bony productions, and consider them as growths from the tegumentary system. But though they grow in layers like horn, still they contain none, as Müller has repeatedly satisfied himself, but true cartilage yielding glue. From the dental cartilage of a horse's tooth, he obtained by boiling a large quantity of beautiful colourless glue. Whalebone, and other corneous formations, which supply the place of teeth, consist, he has found,

of true horn, and furnish no glue, however long they may be boiled. It would seem from this, that horn supplies the place of dental cartilage when the teeth contain no deposition of calcareous earth. This is the case, at any rate, with the vertebrata. It seems to us that teeth hold an intermediate place between true bone and horn. They have analogies with either, closer to the former nearly in proportion to the superiority, to the latter nearly in proportion to the inferiority of the animal in the zoological scale.

The Enamel.—According to Purkinje's researches, continues Mr. Nasmyth, the enamel consists of simple perpendicularly-placed fibres, increasing somewhat in size towards their upper extremity, forming quadrilateral prisms, and often making several curves on one and the same level. These fibres are adherent to lamellæ, which run transversely round the tooth, and generally rest obliquely on the surface of the dental substance. These observations are fully confirmed by Muller, who has examined the last molar tooth of a calf, on which the enamel was still soft, and found that even in this state the latter consists of separate prisms, as yet uncemented, but held together by a transparent fluid matter. These firm but somewhat flexible fibres are not easily acted on by acetic acid, but quickly dissolve in muriatic acid, without any perceptible escape of air.

B *Observations of Retzius.*—These observations are so voluminous or so minute, that it is difficult to know where to begin or stop, so as to suit the readers of a journal. Passing over between sixty and seventy pages, chiefly occupied with the minute anatomy of teeth in various animals, we arrive at the conclusions which Retzius draws from his own researches and observations, and we shall endeavour, so far as is practicable, to condense his summary. Analysis is next to impracticable, and abbreviation must principally consist in omission. We may premise what we shall insert by the remark, that Retzius owns and regrets the imperfection of his investigations and his knowledge. We proceed with Retzius' summary.

"The teeth of mammalia consist in general of three substances, the dental bone, the enamel, and the cortical substance. These three substances form also the teeth in certain amphibia and fishes. The dental bone contains tubes and cells which are in communication with each other, and which are analogous to the minute tubes and cells forming an important part of the organization of bone.

The minute tubes in the osseous substance I demonstrated, together with those of the dental bone, by making slices of teeth which were still fixed in the alveoli. Preparations made in this manner contained of course a portion of the alveolar bone, which, when it was filed as thin as the sections of the tooth, illustrated the internal structure of the dental bone. These tubes in bone itself had been shortly before found by Müller and Miescher, as also by Purkinje and Valentin. Müller was the first who showed that they contained calcareous matter. They are still more minute in bone than in the tooth, and are many times smaller than the most minute blood-vessels, their thickness, according to Müller, being 1-5000 line P. M."

"They radiate from the minute medullary canals, which were first more carefully examined by Purkinje, give off an abundance of branches which form reticular communications, and terminate in Purkinje's corpuscula, or cells. I call them by the latter name, because I am convinced that they are excavations in the substance of cartilage as well as in that of bone, which partly contain a clear fluid, and partly deposits of calcareous salts." 114.

"The tubes in the dental bone open into the cavitas pulpæ, and give off branches in their course, which form a network of communication between each other, and which terminate in cells. These cells, together with the branches from the main tubes, nearly fill up the interstices between the latter. The breadth of the main tubes varies from 1-400 to 1-1000 of a line P. M, and diminishes as they divide into branches: the most minute subdivisions are many times smaller than 1-1000 of a P. line. It is very likely that the tubes and cells which are seen under the microscope form but a small portion of those which really exist.

The dental bone, as Cuvier and several others have described, is deposited layer by layer round the surface of the pulp, and the most external layer is that which is first deposited. During this process the most external closely contiguous cells have their origin, and also the peripheral extremities of the main tubes. During the formation of successive layers, the latter are also continued inwards; and it would seem as if their parallel curvatures were produced during their continuation from one layer into another. In this case we have grounds for presuming that there is a periodical motion of the pulp, by means of which the tubes, whilst in process of formation, are at one time pushed towards the apex of the tooth, and at another drawn down and in the direction of its root. We may also imagine the periodical motion to be of various kinds. The most delicate and most numerous undulating curvatures must be the work of very short periods. The longer, shallower curves, of which every fully developed tube presents only a few, may be regarded as marks of other and slower periodical changes in the formation of the pulp, during which those producing the short tubular undulations are carried on uninterruptedly." 115.

These processes, however, continues Retzius, are only carried on with complete regularity before the tooth protrudes through the gums. In the extremities of the roots, and in the osseous mass filling up the centre of the cavitas pulpæ, which are subsequently formed, the tubes are less regular and uniform than in other parts. In this last formed osseous mass, the branches of the tubes are best shewn, because both the former and the latter have no longer their parallel arrangement. In this irregular form of dental bone the largest cells are found, and the entrance of the tubes into the latter is admirably well seen, as also the reticular meshes formed by the tubes themselves. In many places this substance presents so great a similarity to other osseous formations, that it appears rather to belong to ordinary bone than to dental bone; it differs, however, from the former in the larger size of its main tubes.

After some remarks, the gist of which is to shew, *that* the similarity between dental bone and real bone is greater than, at first sight, it would seem to be—and *that* the main difference consists in the manner of their formation, the external layer being the first formed in dental bone and the last in real bone—Retzius goes on to state that, it can scarcely be doubted that the minute tubes in dental bone, in the cortical substance, in common bone, and in the horns of deer, as well as the cells which are united with them, are a peculiar kind of vessels, containing a nourishment and supporting fluid, of which probably the composition differs at different periods. This fluid is most likely secreted by the capillary vessels which clothe the surface of the pulp.

Retzius adverts to the subject of the vital processes going on in teeth—a difficult matter, on which we confess that he does not much enlighten us; in fact, he leaves the difficulty as he found it. His idea would appear to be,

that the solid matter of the tooth, once formed, is not changed, but that there exists a renovating circulation of the dental fluids in the minute tubes and cells.

"The *enamel* presents a much more simple structure, being without sanguiferous or any especial vessels: its structure most resembles that of the crystalline lens. It also probably requires an organic fluid for its preservation, which, as I presume, is conducted to it by the tubes of the dental bone, permeating afterwards the membranous parietes which probably clothe the individual fibres. This substance is not found in all teeth, but appears in many cases in a rudimentary state, so to say, inasmuch as it is missed in the teeth which have not yet or have only just protruded—as in the anarrhichas lupus, gadus molva, and phoca annellata." 121.

The *cortical substance*,* continues Retzius, is found on the teeth of most mammalia, and is also met with on those of amphibia and fishes. It is everywhere distinguished by a predominant abundance of osseous cells, and by less extended, in general more minute, and often altogether irregular osseous tubes. It is formed in some animals (in the elephant, the horse, the ox, &c.) as the outer covering of the enamel, particularly within the folliculus dentis before it is closed; but in these animals also it is secreted during the whole of life from the membrane surrounding that part of the tooth which is concealed in the alveolus. In most animals with simple teeth, as also in man, it only invests that part of the tooth which is not covered with enamel. In the bradypus, in which no enamel is found, it covers the whole tooth.

Its deposition round the root of the tooth increases as the cavitas pulpæ closes, and as the pulp itself correspondingly diminishes. The minute osseous tubes in the cortical substance then form immediate communications with the osseous cells and osseous tubes in the dental bone, so that the latter can now, when the pulp has as good as ceased to exist, receive the necessary supply of fluids from without. In certain animals the cortical substance presents also larger canals, which are of about the same thickness as the medullary canals in bone. In the cortical substance closing in some teeth the end of the cavity of the pulp which would else be open, those tubes open into the said cavity, and contain the blood-vessels which belong to the pulp itself. The larger tubes which are found in that portion of the cortical substance lying exposed beyond the gum, appeared empty, and are probably only the remains of the blood-vessels which were engaged in its formation. It is, however, still probable that even in this substance a circulation is kept up of peculiar fluids secreted from the blood, which fluids rise into the peculiar minute tubes and cells, in much the same manner as the sap rises in a plant.

The layers of dental bone are deposited, as above described, from without inwards, the most external being thus always the first formed: in the cortical substance the reverse obtains,—its inner layers contiguous to the surface of the tooth are first formed, and afterwards the outer ones.

The cortical substance presents no similarity to tartar; and one of the best proofs that the latter is a mere deposit from the saliva, is the fact that we find thick crusts of it round artificial teeth.

Such are the chief facts determined by Purkinje, Müller, and Retzius.

---

* The "crusta petrosa," as it is usually denominated.—*Rev.*

Mr. Owen has re-investigated the subject, and lent to their views the sanction of his concurrence. And he has arrived at a conclusion, previously entertained by Mr. Nasmyth, *that* the structure of the teeth, as manifested by means of the microscope, forms a new, distinct, and specific guide for classifying the different members of the animal kingdom, and determining their respective types. From the enduring nature of these organs, the characteristic modifications which they present, will form, as Mr. Owen has admirably pointed out, a most valuable accession to geological science.

Mr. Nasmyth devotes some thirty pages to the labours of Arnold, Raschkow, and Goodsir, on a subject of great moment—the *development of the teeth.* A subject, too, of difficulty almost proportioned to its magnitude. Everybody conversant with anatomy, everybody who has read, or studied, or worked in any way upon the teeth, is aware of the obscurities that beset the investigation of their development, and of the inconsistencies, theories, and contradictions of the physiologists who have meddled with it. Our readers may perhaps suppose that, with Arnold, Raschkow, and Goodsir, we turn over a new leaf—that at last microscopes have been found to tally—that something like the phenomenon of three dental anatomists not contradicting each other point-blank is to be witnessed. Simple readers, men of easy faith! Arnold, Raschkow, and Goodsir, are absolutely positive and negative poles in their statements.

"The department of anatomy under consideration," naïvely remarks our author, "has shared the fate common to almost every branch of the subject—that is to say, what has been affirmed in it by one inquirer has been systematically denied by the next. Raschkow and Purkinje directly and positively contradict the opinions of Arnold and Goodsir." 131.

Such being the case, we think we shall consult our readers' interests by allowing these gentlemen to arrive at something like unanimity, before we cite their facts or fancies.

But Mr. Nasmyth himself has hitherto scarcely appeared upon the page. He has been seen or heard but as the chronicler of others. It is in future parts that he will speak in propriâ personâ, and, from what we know of him, we are sure that he will speak well. Yet even in this he says a little. The last few pages are occupied with a retrospective glance at the historical sketch which has terminated, and contain a faint attempt to extract from it what our utilitarian practitioners love, some precept or lesson of practice.

1. After pointing out the questions (the easy labour) on which anatomists are all at loggerheads, Mr. Nasmyth arrives at one on which (observe the prodigy!) they are all agreed.

"There is one opinion which has been uniformly maintained by all writers on this subject, viz. that when the teeth of man, or other analogous simple teeth, are extruded, the enamel is divested of all external covering, and exposed immediately to the atmosphere, denuded of both the envelopes of capsule and mucous membrane which it possessed during what has been called the saccular stage; and this denudation has always been supposed to be effected by the disruption of these coverings. My own views, however, on this point, which are contained in a paper read some time ago before the Medical and Chirurgical Society, are different from those generally received; and I have no doubt that I shall be able to prove that it is a process of absorption, and not of disruption, by means of which the tooth is emancipated, and that when perfected and ex-

truded it is still invested with a capsular covering. This covering, as it is seen to be continuous with the crusta petrosa, I consider to be analogous to it, as the latter has been found to invest the whole tooth in an enlarged state in many animals, and in a particular interesting form in the orycteropus, bradypus, walrus, &c." 154.

We *did* opine that enamel would have been left to us. But, alas! Mr. Nasmyth has given it a varnish of Crusta petrosa. *Crusta petrosa* indeed!

2. It has been left, says Mr. Nasmyth, to the sagacity of Raschkow, one of the most recent writers of this department, to explain what Herissant calls the *temporary gum*. Other writers have presumed that the tooth, before its extrusion, has a cartilaginous investment, forming of course a considerable obstacle to its progress; but the truth is, that this covering, instead of being cartilaginous, is merely composed of thickened epithelium.

The minute and interesting bodies first noticed by Cloquet and Serres, and denominated by them the dental glands, have been denied to exist by some inquirers, and one writer has gone so far as to assert that they are "too manifestly a mistake to require any particular refutation." They certainly, however, do exist, though probably they are neither entitled to the appellation of glands, nor endowed with the permanent functions assigned to them by Serres and Blandin.

3. The alveolo-dentar periosteum costs Mr. Nasmyth the enumeration of some eight or nine opposed statements. Each author was probably as certain that he was right, as Mr. Nasmyth is that *he* is right.

"It appears to me to be certain, that the external periosteum sends a continuation to line the cavity of the alveolus simply, and that the fang of the tooth continues invested by the original capsule." 157.

4. On the structure of the teeth, we may be amused, if not satisfied, with our last quotation:—

"Hippocrates taught that they were composed of *hardened fat*. Leeuwenhoek was the first who stated that their structure is *tubular*, and this doctrine, after having been forgotten for one hundred and sixty years, has lately re-appeared in a most attractive garb. Monro believed that these organs are *longitudinally fibrous:* Fox, that they were *deposited in layers*. G. Cuvier says, 'that they are *neither cellular* nor *fibrous*, but composed of *laminæ*.' Bichat held that they were analogous to *rock*, and *fibrous;* Serres, on the other hand, sees *nothing like fibres* in them. Rousseau describes their structure as being *longitudinally striated*. Blandin, who wrote so late as 1836, tells us, that they are composed of *plates*, situated parallel to their external surface; and this statement was made a year after Purkinje, and others, in Germany, had so beautifully demonstrated their fibrous texture. This latter subject has been further elucidated in the most complete manner by professor Retzius; and that the structure of the ivory is at any rate fibrous, could not now be denied even by M. Serres, or by those who have stood up for its rocky or simply stratified character.

The labours of Retzius and his contemporaries must be considered as a most splendid contribution to minute anatomy; but I still think that the evidence in favour of the existence of a *system of ramifying tubes* in dental bone or ivory, requires much further examination and corroboration, before we can be justified in adopting a theory tending to overthrow many received opinions, results of ordinary experience. The difficulty in arriving at just views of this subject is partly owing, I think, to the circumstance that writers have comprehended very different structures under the same term. All the diversified textures entering into the composition of the *bodies* of different teeth have been described as dental

bone or ivory; and it is unfortunate that the advocates of a tubular system have not been much more precise than their predecessors in defining the specific nature of the various dental structures, in which they state that they have traced hollow fibres.

Like all newly propounded doctrines, the theory of a tubular system, as laid down in the preceding pages, will be found to present some internal contradictions. 'It can *scarcely be doubted*,' says Retzius, 'that the minute tubes in dental bone, in the cortical substance, in common bone, and in the horns of deer, as well as the cells with which they are in connexion, are a peculiar kind of vessels containing a nourishing and supporting fluid.' In another part of his work, however, he says, 'with respect to the contents of the canals, I, as well as Professor Muller, have found that they consist of an inorganic or earthy substance, which appears white when viewed on a dark ground, but which disappears when the preparation is placed in diluted muriatic acid. When the light falls into these canals, this matter is seen to be composed apparently of infinitely fine particles, adhering together in lumps. The greater or less number and distinctness of these lumps seem to depend on the degree in which the preparation has been penetrated by water, oil, or turpentine.' 'That the small osseous tubes and cells,' he afterwards adds, 'contain osseous earth is seen from their whiteness.' And one of his followers states, that 'these tubes are chiefly rendered visible by means of their contents.' How a tube can be filled with osseous matter, and at the same time allow of the circulation of a 'nourishing and supporting fluid,' I cannot understand. It must not be forgotten, too, that Retzius allows 'that, in the tooth, no renovation of the material appears to take place.'" 161.

We must take our leave of Mr. Nasmyth. Let us again press it on the attention of our readers, that this is the Historical Introduction to his work. As an original thinker and actor he is not yet before us. When he comes, we are confident that he will not falsify the character which we have given of him.

But we candidly admit that we look with apprehension on researches into the minute anatomy of teeth, or their development. We are sure that most plain men will give them up in despair. The only way of forming a satisfactory opinion, is to adopt the Cadhi's plan, and hear but one side. If two are allowed to speak, the case is hopeless.

It will be when Mr. Nasmyth arrives at the practical portion of his subject that he will meet with most attention—excite most interest. We promise the public that they will not experience disappointment, for a more zealous and intelligent gentleman than Mr. Nasmyth we do not know.

Medical and Physical Researches, or Original Memoirs in Medicine, Surgery, Physiology, Geology, Zoology, and Comparative Anatomy. Illustrated with Plates, containing 160 Figures. By *R. Harlan*, M.D. F. R. S. Lond. &c. &c. &c. Philadelphia. Royal octavo, pp. 653. 1835.

The volume before us is chiefly devoted to the collateral sciences of geology, zoology, and comparative anatomy. The essays which relate to them are replete with information, and will repay perusal. But they are not adapted to our pages, and we must necessarily pass them by. To do so without complimenting our transatlantic author, on his zeal and acquaintance with the subjects he discusses, would be an act of positive injustice.

The medical or surgical papers are found in a narrow corner of the volume. They are unconnected with each other, and many are of too general a cast to suit our purpose. We must content ourselves with noticing a few briefly, apologizing to Dr. Harlan for the small space that we can spare.

1. *Case of Aneurysm of the Pulmonary Artery.*

Cases of this disease are sufficiently rare, to render what do occur objects of curiosity.

Case. In September, 1814, Dr. Harlan assisted Dr. Parrish in the examination of the body of Capt. Man —a midle-aged person of robust constitution. His disease had never confined him to his house, and the day preceding his death, he called on Dr. P. and complained of dyspnœa, and pain in the back of his neck. His symptoms were referred to stricture of the œsophagus, and Professor Wistar, who was consulted, advised the use of the probang; the patient deferred this operation, and during the same night was attacked with increased difficulty of breathing, and exacerbation of all his symptoms. A bleeder being sent for, he lost some blood, with temporary relief—but in a short time after, he expired in convulsions.

Autopsy, about eighteen hours after death, very unexpectedly developed an aneurysm of the pulmonary artery—the sac of which had extended so far back as to press upon the œsophagus, and produced symptoms of stricture in that part. There was considerable effusion in the lungs, and a lump of coagulated blood in the trachea, near the glottis—which most probably occasioned his sudden death. The effusion was occasioned by the rupture of the aneurysmal sack, which was adhering to the air-cells of the lungs.

Dr. Harlan justly observes, that it was fortunate the probang was not employed.

2. *Treatment of Carbuncle with the Caustic Alkali.*

In this country, we always make use of crucial incisions, and with what success everybody knows. But Dr. Harlan recommends the caustic alkali as

less painful. We confess that we doubt its comparability with incisions. But let the Doctor speak for himself.

Applied in the earlier stages of the disease, it immediately arrests the specific action, and establishes healthy suppuration, whilst in the ulcerative stage, it very soon changes the morbid action, and at a still more progressed stage, it separates the sloughs, and produces a healthy sore.

The caustic alkali should be used liberally, and followed immediately by a bread and milk poultice, for which, the application of a mixture of basilicon ointment and spirits of turpentine is occasionally substituted, in order to hasten the separation of the sloughs; this, with the necessary attention to the constitutional symptoms, the treatment of which is to be modified according to the state of the system, is all that is requisite to the cure of carbuncle.

3. *Case of Prolific Uterus and Barren Mammæ.*

In October, 1820, Dr. Harlan's services were requested by Mary Ann Gready, aged 30, native of the North of Ireland. She is the youngest daughter of twenty-two children, thirteen of whom attained maturity; her mother never secreted a drop of milk wherewith to nourish her infants. Mary Ann, the subject of the present observations, was delivered by Dr. H. of her thirteenth child, a perfectly formed female. Out of these thirteen progeny, two were aborted, from accidents; two were premature; four are living; and five died from disease. On the third day after parturition, the mammæ are observed to swell a little, and to become slightly painful; on the fourth day they subside again. About the third week after parturition, a stomachic affection supervenes, such as pain, eructation, nausea, vomiting, and other dyspeptic symptoms, which continue until she again becomes pregnant, which has always occurred in five months after delivery. No uncommon appearance of the mammæ is perceptible—they being adequately developed.

4. *Dr. Harlan's Experience of the Sugar of Lead in Dysentery.*

"In the Summer of 1820, while prescribing in the Dispensary of this city, I employed the saccharum saturni in many cases of dysentery, and the result of my experience has convinced me that it is a safe and efficacious remedy in this disease. I have found it, in the majority of cases, to check the bloody stools, to allay intestinal irritation, and to relieve, in a very prompt manner, tormina and tenesmus. It will be observed that I did not generally prescribe the sugar of lead by itself; and it may, therefore, be inferred, that the remedies with which it was combined, had the principal share in the remediate effects of my practice. This may be so, in some of the cases, but I am, notwithstanding, fully satisfied that the sugar of lead was of much service in the prescriptions I ordered; and this I infer from my having uniformly derived more advantage from my prescriptions when the sugar of lead was added, than when it was omitted. In some instances it was administered alone, or combined only with small doses of opium." 567.

We subjoin one case in illustration:—

Case.—Sept. 12. James Roberts. This was a very severe case; the tormina and tenesmus were exceedingly great. The patient discharged a

considerable quantity of blood. Dr. H. saw him within the first twenty-four hours, and immediately ordered:—

Sacch. Saturn. gr. xviii.
Pulv. Opii. gr. vi.
M. ft. pulv. vi. One to be taken three times daily.

By the use of this medicine alone this patient was perfectly cured in three days. The tenesmus, tormina, and bloody discharges were promptly relieved, and the cure was permanent.

Dr. Harlan adds:—

"It appears from the works of Jackson, and Moseley, that sugar of lead has been used, both in acute and chronic dysentery, in the West Indies. This I was not aware of until about to draw up these remarks. I believe, however, that this remedy was not used, in such large doses, with similar views, with the same results, and to the same effect, previous to my having used it so very extensively and beneficially in the obstinate epidemic of 1820. I do not, indeed, know that the sugar of lead was ever used at all in the acute dysentery, in this city, previous to the summer of 1820. Whatever may be the origin of this practice, however, I am fully satisfied, that the sugar of lead, properly administered, is calculated to prove extensively useful in dysenteric affections." 570.

5. *Observations on Colica Pictonum, and on the Use of the Acetate of Lead in that Disease.*

Dr. Harlan has had, for a number of years, the professional charge of the labourers attached to one of the most extensive white-lead manufactories and chemical laboratories in the United States. His opportunities of becoming acquainted with the disease and its treatment have been, therefore, far from inconsiderable.

The men employed are for the most part of robust constitutions, and chiefly natives of Ireland and Germany. A certain degree of susceptibility or predisposition seems a necessary antecedent to the attack. Drunkenness, or habitual dissipation of any kind, renders the system peculiarly liable to the disease, and frequently leads to a fatal issue. Sudden transitions of temperature, together with exposure to cold and moisture, are predisposing causes. The cases were most common late in the Spring and early in the Autumn.

Danger of particular parts of the Process.—Of the youths who constantly work at rolling the sheets of lead, in the melting room, only one has been affected with *lead disease.* A boy, about twelve years of age, was attacked at night with paralysis of all his extremities, and with pain in the abdomen. He was treated with mercury, cathartics, &c. He recovered—returned to work—and again relapsed in three or four days. He finally recovered, with the usual remedies, and was discharged from the manufactory.

The different stages of manipulation in the manufacture of white-lead, render the labourer obnoxious to these affections, and also give rise to some peculiarities in the attack and in the symptoms. The most dangerous operation consists in the packing of the kiln-dried white-lead into barrels, a process performed by *negroes*, who are employed for the purpose at short periods, and at considerable intervals. Among these several cases have occured.

Those hands employed in melting the metal in the casting-room, are more

liable to be attacked with apoplectic or epileptic convulsions, without pain in the bowels during the first stage; and such cases are more apt to terminate in *paralysis*.

Frequent opportunities have occurred to demonstrate that man is by no means the only animal subject to this disorder. Dogs, cats, cows, and chickens, not unfrequently die with this affection. In the latter, "post mortem" examinations have displayed mortification of the intestines. Symptoms of cerebral derangement have manifested themselves in the feathered tribe, when labouring under the deleterious effects of white-lead. After a few moments of cataleptic abstraction, they have been observed to dash their heads against the wall, or any other resisting object. Instances of the disease have been observed in pigeons, which frequent the ordure bank in the lead factory yard. Immediately preceding death they are occasionally observed to ascend into the air to an immense height, and fall dead to the earth. On dissection, mortification of the intestines is detected.

Modes of Attack.—Dr. Harlan troubles himself with no hypothesis on the intimate mode of action of the lead. He believes that it may be absorbed into the system either by the stomach, lungs, or skin.

Yet, he adds, "it does by no means invariably produce colic, pain in the bowels, or constipation, as an early symptom. On the contrary, I have frequently observed that some of the most obstinate and severe cases of 'lead sickness,' are ushered in by a diarrhœa, sometimes continued for two days, but which is mostly checked by proper remedies in a few hours. In other cases, the patient is attacked, generally at night, with symptoms which I have designated as *apoplectic*, from the suddenness of the attack, the stertorous breathing, and insensibility, generally attendant; but at the same time, it must be remembered, that there exists a state of the system very different from that which prevails in apoplexy. Together with the symptoms above stated, the patient is cold, particularly his extremities; his countenance, in place of being suffused, is pallid; and convulsions of the whole frame frequently occur. This order of things continues from a few hours to three or four days. In these cases, as might have been anticipated, the patients do not bear general bleeding. The best practice consists in the administration of calomel and opium, notwithstanding the constipation of the bowels and determination to the head, resorting, at the same time, to the early use of cathartics. These remedies, assisted by the application of cups to the head, and a blister to the back of the neck, with rubefacients to the lower extremities, will generally prove successful in curing the disorder, or in transferring it to the bowels. I have witnessed one case of this description treated differently, which terminated in the death of the patient." 574.

But by far the greater number of patients afflicted with "lead sickness," display the symptoms of old-fashioned colica pictonum, or "dry belly-ache;" in which case we find them labouring under excruciating griping pains in the region of the umbilicus; the skin of the abdomen is thrown into folds or knots; obstinate constipation prevailing, with febrile excitement; the tongue being sometimes white, at others covered with a thick brown fur. The pain is principally spasmodic, occurring at intervals of different durations, and is seldom entirely intermitting.

Treatment.—Dr. Harlan informs us that, after trying various remedies, his practice has long been settled.

"We will take, for example, a violent case, characterized by the above detailed symptoms. It is my practice to bleed from the arm; and in some cases cups are applied to the abdomen, or a mustard plaster, followed by an epispastic over the inflamed skin. But, at all events, I lose no time in administering calomel and opium, in the proportion of ten grains of the former to two or three of the latter; and, if there be no nausea present, two grains of ipecacuanha are added. The whole powder is repeated every two or three hours, until pain is relieved, or ptyalism is induced; it is then omitted, and one or other of the following cathartics given. ℞. sal. eps. ʒj. magnes. ustæ, ʒss.; mix them in a pint of water, and take from a wine-glassful to a tea-cupful every two hours. Or, ℞. rad. rhei. contus. ʒss., fol. sennæ ʒj., sem. cardam. ʒij.; decoct in one pint of water. The dose is one wine-glassful every two hours until the bowels are evacuated.

At this stage of the disease patients will require large doses of the cathartic; and, if administered earlier in the case, or previous to the free administration of mercury and opiates, no quantity that the stomach is capable of containing can be made to produce a cathartic effect on the bowels. I have frequently witnessed the whole quantity of both the above prescriptions taken, together with the addition of castor oil, without any effect. As the excitement of ptyalism is of vital importance in violent cases, the blisters on the abdomen are to be dressed with mercurial ointment, and mercurial frictions, to a greater or less extent, are to be resorted to; especially if any torpor or insusceptibility in this respect is observed in the patient.

As valuable adjuvants in such obstinate constipations, the use of turpentine injections, or injections of molasses and water, with half an ounce of table-salt, is next to be resorted to. In some cases, where the heat of the abdomen was very great, attended with soreness on pressure, anxiety and restlessness, with other symptoms denoting approaching enteritis, the most decided advantages have been obtained by the use of large and frequently repeated injections of cold pump water. In this manner heat is abstracted and inflammation prevented or arrested. Affusions of cold water on the lower extremities have also been resorted to with success in similar constipated cases. This treatment, under ordinary circumstances, will seldom fail of success. One patient recovered after having displayed every character of the hippocratic countenance: a state of things, in the present instance, induced by gastric sympathies; the patient, previous to being relieved, having ejected from the stomach a large quantity of matter, resembling thick green paint." 576.

The most violent and unmanageable cases are those attended with extreme irritability of stomach, which rejects every thing. Dr H. has employed laudanum, peppermint, calomel and opium, and oil of turpentine, together with the external application of spices and rubefacients. When all these have failed, he has succeeded by means of a remedy which might not, à priori, have been thought advisable, the powdered acetate of lead. The advantage which he derived from it in dysentery, led him to employ it in the "colic." He resorts to the following formula:—

℞. Cal. ppt. gr. v., pulv. opii. gr. ij., pulv. sacch. sat. gr. iij.—m. ft. pulv.; to be repeated every two hours until relief is obtained; which is generally the case after two or three powders have been taken. Injections of saccharum saturni, with opium in solution, have also been successfully used for a similar purpose. After the administration of the remedy, and when the stomach is calmed, the usual remedies are resorted to. The substances ejected from the stomach, in these cases, consist, for the most part, of vitiated bile, the quantity being at times exceedingly great.

When the bowels have at length given way to the effects of medicine, at

times, enormous quantities of feculent matter, with flatus, are discharged, and if not moderated, the catharsis would endanger the life of the patient.

"For this purpose, if pain still remains, I give castor oil and laudanum, or, if the stomach reject this, small doses of spirits of turpentine and olive oil, alternated with laudanum. But should torpor of the bowels still remain after the violence of the disease has been overcome, I have found a useful remedy in a mixture of castor oil and spirits of turpentine, in the proportion of a table-spoonful of the former, to a tea spoonful of the latter. In more obstinate cases of torpidity of the bowels, under these circumstances, I have resorted to the use of croton oil, with signal advantage. This was particularly the case in two patients, who, after a recovery from a severe attack of colica pictonum, had a *relapse*, without any subsequent exposure to white lead—having been seized with catarrh from exposure to cold and damp." 578.

The cases of paralysis of the extremities, usually of the fore arm, which he has witnessed, have, with the exception of one, done well under the use of powdered nux vomica, caustic issues on each side of the nape of the neck, and purging medicines, continued for two or three months.

Notwithstanding, continues our author, the utmost care and attention on the part of the medical attendant, this disease will frequently terminate in inflammation of the intestines; but this is by no means necessarily fatal, provided the attention be attracted in time to this symptom. Post mortem examinations, at least such as occurred under his own inspection, have invariably displayed mortification of the intestines, provided mania à potu had not supervened and carried off the patient. Four cases only have terminated fatally under his own treatment. Three of these were habitually intemperate; and the other, an ignorant German, unacquainted with the dangerous nature of his complaint, suffered himself to be neglected for three days previous to making application for relief.

From the severity of the disease, together with the use of the necessarily violent remedies, dysentery, with copious discharges of blood, is not unfrequently induced; in which case no remedy is more effectual in relieving pain and suppressing the discharge, than the pulverized saccharum saturni, in combination with calomel, opium, and ipecacuanha. Should the blood discharged, after long-continued constipation, present a grumous or coffee-ground appearance, it indicates commencing mortification, which, for the most part, speedily ends in the death of the patient.

Remarkable Case of Intussusception.

On the 1st of May, 1819, Dr. H. was called to a child, aged 5 months; he found her very restless, with a tongue white and furred, little or no fever, and such irritability of stomach that she had rejected the greater part of the medicines which had been given to her. Dr. H. prescribed calomel, castor oil, and a turpentine enema. The irritability of the stomach ceased so far as to allow of these remedies being retained, but no action could be obtained from the bowels, and attention being directed to the fundament, there was observed what Dr. H. took to be an inversion of the rectum; which protruded nearly an inch beyond the verge of the anus every time the patient strained. At 12 p. m. the little patient died.

Dissection.—On opening the abdomen the dissectors were struck with the size and position of the colon, which appeared as if distended with fæces of

a black colour, extending no further than the left hypochondriac region, where an intussusception was evident.

They found the intussusception commence in that portion of ileum just before it enters the caput coli, but instead of entering, as usual, in the right iliac, it was found in the left hypochondriac region.

The parts involved in the disease were as follow: about one inch of the ileum, the whole of the cœcum, with a portion of the colon, were received into the remaining portion of the colon; the intussuscepted portions of the cœcum and colon were of course inverted. The cœcum had descended into the rectum; which gave to the latter the appearance of a bowel distended with hardened fæces, whereas there was not more than half an ounce of fæcal matter in the whole extent of the colon, and that was of a fluid consistence.

The cœcum was thickened from inflammation; and its inner surface, together with a portion of structured colon, was in a state of gangrene. It was this hardened, tumefied, and inverted cœcum which had descended beyond the verge of the anus during the act of straining, and which Dr. H. had mistaken for prolapsus of the rectum.

"Had the precise nature of this case been known, it would have been impossible to have overcome the obstruction by any mechanical means, as, after the parts were taken out of the body, we were unable to dissolve their connexions without laceration—after such separation, however, we were enabled to produce an artificial intussusception precisely similar to the original." 565.

7. *Some Experiments and Observations on the Poison of the Rattlesnake.*

Perhaps we may be excused for observing that very erroneous ideas are entertained by many medical men on the subject of animal poison. Their effects are singularly modified by the state of the individual who is their recipient, and the same poison, in the same dose, which will produce serious symptoms in one person, may occasion very trivial ones in another, and no perceptible consequences in a third. It is to this circumstance that we may mainly attribute the reputed efficacy of many of those antidotes that swell the measure of popular, we might almost add of professional credulity.

Some observations and experiments of Dr. Harlan's on the poison of the rattlesnake seem to us so well calculated to illustrate an important practical principle, that we shall briefly notice them.

A collection of rattlesnakes was exhibited in Philadelphia, by Messrs. Elnsworth and Murray. They professed to be in possession of a specific against the effects of the bite, and handled the animals with the utmost fearlessness. They even offered to submit to being bitten for the sake of the experiment, and a committee, including Dr. Harlan, witnessed and superintended it.

On the 15th of December, 1827, Mr. Elnsworth, at 12 h. 15 m. exposed his left hand to a large active male snake,* purposely irritated, and received a wound from a single fang on the back of his hand, directly over a prominent venous branch. A large drop of transparent, yellowish, and glairy

* He had previously received a bite from a female snake.

fluid was spread over and around the wound, which was doubtless ejected from the poison sack. A little very dark blood slowly exuded from the wound.

12 h. 31 m. Slight swelling is observable immediately around the second bite.

12 h. 48 m. Elnsworth again exposed his hand to the female snake, and received two additional punctures simultaneously, one from each fang, on the lower extremity of the metacarpal bone of the ring-finger. As in the first instance, neither of these wounds displayed symptoms of the specific effects of the poison; the *second bite* therefore, or that received from the male snake, will alone be the subject of further observations in this experiment.

1 o'clock, p. m. The swelling around the second bite has increased considerably, the tumefaction extending up and down along the course of the vein, about an inch and a half in length, and half that size in breadth, the greatest length of the tumefaction being below the wound. The man now complained of pain and numbness along the course of the lymphatic vessels on the inner part of the fore-arm.

1 h. 25 m. Pulse natural, symptoms last described somewhat increased; swelling unattended with symptoms of inflammation.

1 h. 30 m. Although the man is perfectly willing to permit the symptoms to proceed further, several of the witnesses expressed their unwillingness to bear the responsibility of the consequences; he was therefore permitted to have recourse to his remedy, and he immediately swallowed a few ounces of the decoction of the root, and appeared indifferent about the external application of the same to the wound. He stated that the original stock of the vegetable being exhausted, and the season too far advanced to enable him to obtain more at present, he would be under the necessity of applying portions of the flesh of one of the reptiles (just decapitated for the purpose of another experiment) to the wound.

2 h. 30 m. He has held the bloody portion of the snake to his wound incessantly, from which all the swelling has subsided, together with all uneasy sensations, from his hand and arm.

4 o'clock, p. m. The man Elnsworth has remained constantly in the room under inspection. His dinner was offered to him, but he had little disposition for food; says his stomach is a little sick, probably the effects of the medicine. No tumefaction or other symptoms remain; the wounds resemble slight scratches, without any appearance of inflammation. The vein in which the bite took effect presents a peculiar appearance, being for the distance of an inch between the valves above and below the wound quite empty. Directly above the valve the vein is unusually prominent, and the pressure, from the application of the flesh, has been removed for more than an hour.

The root proved on inspection to be that of the *Hieraceum venosum*, or Hawk-weed, Adder's-tongue, Poor Robin's plantain, Rattlesnake weed, &c. a common weed in the dry open woodlands.

The man, therefore, experienced few or no bad effects from his bites, whether by the female or the male snake. It was an object to determine whether animals would suffer from them.

Experiment.—11 h. 31 m. A pup, about three or four weeks old, was bitten by the same female snake which had previously bitten Elnsworth in the

first experiment; both fangs took effect, and the two wounds were about an inch and a quarter apart.

11h. 34m. Pup urinates.

11h. 36m. Cries and staggers.

11h. 37m. B lly tense in the vicinity of the wound, and apparently painful; the wound presents an ecchymosis, being tumid and of a dark colour.

11h. 39m. Pup lies on his side, and continues his plaintive cries, al emits some froth from the mouth. The ecchymosis increases rapidly, an pale bloody humour exudes from the wounds.

11h. 51m. The animal is quiet and fainting.

12 o'clock, merid. Appears vertiginous, turning round and resting on extended fore feet; staggering and resting on his side, and turning upon his back. These symptoms continued with little alteration until

4 o'clock, When the animal died, having previously exhibited some stertorous breathing, but without the occurrence of convulsions.

Was the recovery of Elnsworth due to the remedy, or to the natural powers?

a. Five experiments were made on animals (inclusive of the last) to determine whether death would necessarily ensue, if the creatures were left to the efforts of Nature. We shall quote one.

Experiment.—4, p. m. A stout pup was inoculated with the poison, expressed from the poison-bag of a living snake, on the left side of the abdomen.

4h. 15 m. Local symptoms are evident, and constitutional effects are beginning to be manifested.

5 o'clock, p. m. Symptoms much increased; the animal cries with pain and uneasiness; changes its posture frequently; moves with a tottering and irregular gait, sometimes lying on its breast with the fore feet extended: these symptoms were occasionally interrupted with drowsiness, and finally the animal went into a deep sleep.

9 o'clock, p. m. The pup commenced licking his wound, the swelling of which, from the ecchymosis, had so increased as to hang down like a large hernia.

The succeeding day this animal also recovered, no symptom remaining except a slight tenderness in the part where the inoculation had been performed.

Dr. Harlan adds:—

"Of all the animals bitten in these experiments, one only died, though all were more or less affected by the poison. Although the wound which was inflicted on Mr. Elnsworth was attended with the usual *local* effects, there is no proof that the poison would have proved mortal without the use of the remedy, inasmuch as obvious local effects were observed in some of the animals that finally recovered without the interference of art. Though at the same time it will be remembered that the first animal experimented on died from the poison of the same snake which had previously inflicted a wound on the man." 504.

b. Some, that we might term crucial experiments, were instituted to ascertain the powers of the antidote. The experiments were three in number. We shall quote the second.

Experiment.—At 4h. 21 m. a small black pup was bitten by an active male snake.

At 4h. 34m. a brown dog was bitten by the same snake severely in the foot; the wound bled freely.

At 4h. 37m. the black dog was again bitten in the foot, the wound being severe.

At 4h. 40m. black dog was drowsy and unable to stand.

At 4h. 45m. brown dog evacuated per anum.

At 4h. 46m. black dog evacuated per anum.

At 4h. 47m. administered a quarter of a pint of the decoction to the black dog.

At 4h. 55m. gave the same dog more of the decoction, say half a pint in all; he is certainly not more drowsy, while the brown dog appears very sick and restless; the black dog swelled a great deal, but shows signs of more liveliness.

At 5h. 25m. gave the black dog half a wine-glassful more; he trembles very much, and the leg is greatly swelled, but he swallows his medicine easily.

5h. 45m. black dog drinks of the decoction voluntarily, and at 6h. 30m. went to sleep. The brown dog has become more lively and limps about the room; the parts in the vicinity of the wounds of both are much tumefied. About this period both became considerably revived; bloody serum was squeezed out of the black pup's wound, and the swelling thus diminished. On the following morning the black dog was found dead, whilst the brown dog recovered completely.

We think these points completely established:—*that* the poison of the rattlesnake may prove fatal to an animal—*that* the poison may produce local symptoms of more or less severity, and that the animal may recover without the interference of art—*that* the poison may produce no general and few or no local symptoms—*that* the hieraceum venosum is *not* a specific against the poison.

These experiments have a wider interest and a more extensive application than may, at first sight, be apparent. Mutatis mutandis, what is proved of the hieraceum may apply to the eau-de-luce, &c. They tend to encourage that rational scepticism so beneficial to science, for here were persons of great empirical experience, exhibitors of rattlesnakes, fearlessly exposing themselves to be bitten on the strength of the virtues of a drug, which, tested by the rational experiments of a physician, could not save the life of a puppy. And such empirical faith may be seen in more professional people than showmen, and walks abroad under the doctor's, nay the lecturer's garb.

PERISCOPE;

OR,

CIRCUMSPECTIVE REVIEW.

"Ore trahit quodcunque potest, atque addit acervo."

NOTICES OF SOME NEW WORKS.

Dr. Evory Kennedy on Hypertrophy and other Affections of the Os Uteri. Dublin, pp. 20.

A ward set aside for the diseases of females in the Dublin Lying-in Hospital has given our author the means of investigating a class of diseases which, for obvious reasons, cannot be extensively examined in this country at least. As the definition of a disease is of some importance, we shall give Dr. Kennedy's.

"What we wish to be understood by the term hypertrophy of the os uteri here made use of, is, the existence of a *partial* and extraordinary development of the uterus, in which, not only that particular portion, but even a particular tissue is engaged. The structure deposited appears to be the existing natural structure in excess; exhibiting little morbid or diseased character, other than that depending upon increased bulk and its consequences. Writers on uterine affections treat of general hypertrophy, or hypertrophy of the body and neck of the uterus, but this disease, as far at least as our observation goes, is rarely met with. We submit that the disease to which it is our object to call the attention of the profession is, on the contrary, one of very frequent occurrence.

The true nature of this hypertrophy is not, Dr. K. thinks, quite understood, some, as Boivin and Dugés, referring it to disease or chronic inflammation—others, as Cruveilhier, to exuberance of nutrition, with some degree of *mollescence*, —while Lisfrance considers it a morbid growth, with *hardening!* and fætid discharge—an affection little analogous to that under consideration.

"With this general view of hypertrophy we must agree, not esteeming it at all imperative that any symptoms indicative of serious uterine disease should accompany it; we have at this moment in the ward for diseases of females, a case of general hypertrophy of the uterus, in which the only symptoms, in addition to the increase of bulk, are retroflexion of this organ, with slight sense of weight and occasional slight obtuse pain in the uterine region."

This hypertrophy may be either partial or general—the part most frequently affected, however, being one or other, or both of the lips of the os uteri. The disease has been mistaken for polypus, and the attempts to remove it have, of course, been fatal.

"The detecting, by a carefully conducted examination par vaginam, and if necessary by the rectum, the elongated or outstretched neck of the uterus, whilst the fundus of the organ is perceptible, of its natural size, and in its usual position in the pelvis, will sufficiently establish the diagnosis."

The affection under consideration, however, is one of the os uteri itself, though sometimes complicated with elongation of the cervix. It appears to consist of an erratic development of the intimate fibro-cellular structure of the part, owing either to an inordinate action of the secernant vessels—or diminution of action in the absorbents—"no altered or diseased action appearing to exist, beyond

the loss of balance in the vessels specified." The new texture when cut into, exhibits the same characters as natural uterine structure.

"The aperture of the os uteri, in the majority of these cases, is found in its ordinary position, bearing the same relation to the roof of the vagina as in the natural state of the parts: the development of the new growth projecting below the opening. We shall best explain the nature and varieties of the affection by giving briefly a few of the cases presented to our notice.

The case of most frequent occurrence is that in which the anterior lip of the uterus takes on this excess of development. A patient with an affection of this kind came into Hospital January 2nd, 1838, æt. thirty-two, who had borne two children; menstruation regular; had for the last eight years been subject to occasional leucorrhœa, and latterly felt a tendency to the womb, as she says, descending, which was increased by laborious occupation. On examining with the speculum, the anterior lip was found protruding, and elongated to the extent of an inch and a half. It is free from pain, and gives the idea to the touch, of consisting of the natural texture of the uterus, being neither harder nor softer; the posterior lip is of the ordinary size, the vagino-uterine aperture small, found at the base of, and posterior to, the elongated tumor.

This case was treated for a fortnight with repeated leeching to the hypertrophied part, and alteratives. The inner surface of the tumour, which was slightly granular, was touched with nitrate of silver lotion.

She left the hospital, on the 14th, reported as having the anterior lip considerably diminished in size, free from discharge, and in other respects improved.

In some instances, but more rarely, the posterior lip takes on this inordinate growth, and when this does occur, it is seldom to so great an extent. A case of this kind was under my care some months since, in which there was, as in the former case, some tendency to prolapse. The patient sometimes suffered pain in the region of the rectum, more especially when the bowels were constipated, or on making much effort at stool. The anterior lip was healthy, and the posterior projected upwards of an inch into the vagina, but was rounded and obtuse in its shape. This case was treated by leeching, alteratives, posture and otherwise, as for prolapsus, and with much benefit.

It occasionally happens that both the anterior and posterior lip become hypertrophied, and this more especially in women who have borne several children. In such, the fissured or divided state of the os, that so frequently results from labour, generally continues. The anterior and posterior lips presenting separate or distinct tumours. Such a case was under treatment accompanied with complete procedentia of the uterus. In this patient the os uteri protruding beyond the external parts, exhibited not a bad representation of a bird with its beak separated. She was treated for prolapsus by cauterizing the vagina, a plan that I have been for some time successfully adopting, and with benefit to the procedentia, but was lost sight of before anything was done for the hypertrophy.

A more remarkable case, in which the os is fissured into three divisions, the intermediate substance becoming hypertrophied at three points, was accidentally discovered in a patient who came lately into hospital for the treatment of a vesico-vaginal fistula; both the fistula and the hypertrophy appeared to have been the result of a tedious labour in the country, where she was allowed to remain too long without assistance. The tripartite hypertrophied os is represented projecting into the vagina, but without any displacement of the uterus, or other symptom indicative of its existence. The outer surface of these three tumours is of the natural texture of the vagina, whilst the inner is rough, of a reddish tint, with vesicles interspersed, for which she has been touched with oxymel æruginis. It may be here remarked, that the internal surface of the hypertrophied portion generally exhibits more of the furrowed, irregular character of the intra-uterine mucous membrane, whilst the outer is

generally polished and smooth; the internal and most dependent portions are not frequently vascular, or, as in the preceding case, present slight vesicles, or granular growths may exist upon their surface."

In most cases the hypertrophied portion is covered with mucous membrane, the continuation of that of the uterus or vagina. One case, however, is related as an exception.

"From the preceding cases it will be seen that the symptoms usually attending this growth, are a sense of fulness and weight in the upper part of the vagina, which may be accompanied with heat and throbbing in this region. As the disease progresses, the patient experiences a sensation as if a foreign body hung down into the vaginal passage; this is occasionally attended by a bearing-down sensation: and in cases of long standing (particularly if injudiciously managed) may become converted into absolute prolapsus, or even procedentia of the organ. Now the practitioner may, for the first time, be aware of the existence of this preternatural growth of the os, when the error is very generally committed, of looking upon this development as the effect not the cause of the prolapsus. The preternatural growth, as well from its weight and mechanical bulk, as by the irritation it produces, acts as a foreign substance attached to the uterus. From its pressure upon the bladder, in hyperthophy of the anterior lip, interference is sometimes observed to occur with the functions of this organ: thus frequent micturition, and sometimes difficulty or extraordinary effort in discharging the contents of the bladder, occur; in other cases, particularly where the posterior lip is engaged, the functions of the rectum are interfered with, when costiveness or pain at stool occur.

On examination with the speculum, the lip of the uterus engaged is in some cases found scarcely at all altered in the appearance of its texture beyond the increased bulk; in other cases the hypertrophied portion appears red and vascular, or this vascularity may be confined to a part, generally the most dependent portion of it. It is also sometimes combined with granular disease of the os, although the menstruous secretion is seldom much interfered with. Hæmorrhagic discharges occasionally occur in this disease; and leucorrhœa is not an unfrequent accompaniment, more especially where much displacement of the uterus occurs. It is also not unfrequently productive of pain and inconvenience *in coitu*.

The throbbing, fulness, and sense of weight, may be increased about the setting in of the periodic discharge, indicating a congestive state of the part; if the speculum be now used, the hypertrophied portion may exhibit a more deep red or purple hue; from this train of symptoms the individual gets relief after the menstruous secretion has passed over. (Thus, no doubt, it has been treated as dysmennorrhœa in some cases). The symptoms accompanying this affection at times partake more the character of irritable uterus, a disease so admirably elucidated by the late Dr. Gooch, at others, they appear to assume all those of inflammation in the tissue engaged, and sometimes they exhibit, as was the case in one of the patients mentioned, a mixed character, assuming symptoms both of irritation and inflammation, and combined with them the hypertrophied state of the os."

Where congestion or inflammatory action exists, repeated local depletions are necessary, with the warm hip-bath, and mild saline aperients. To these means mercurial alteratives are to be added. Our author recommends the local application of solution of nitrate of silver, or even the nitrate in substance. The recumbent posture is necessary. Dr. Hull's utero-abdominal bandage has been used with advantage by Dr. K. Pessaries should be avoided during the local treatment. The ring pessaries are the best, if this plan fails, and the prolapsed part induces serious inconvenience. This complaint is not *necessarily* accompanied by any of the symptoms above enumerated, as it may and does continue for years, without giving any indication of its existence, till the tendency to prolapsus attracts attention.

"The disease with which this affection is most likely to be confounded is polypus. Like polypus, the great extent of its surface is unattached, and its connexion with the uterus is at its upper or most distant part; its being connected externally with the uterus will distinguish it from intra-uterine polypus, whilst its not being pediculated will serve to distinguish it in general from polypus of the neck or os uteri. Its sensibility may assist in corroborating this point, but this symptom is not much to be depended upon. It has been justly explained by Dr. C. Johnson, (Dublin Hospital Reports.) that the absence of sensibility is but an equivocal test of polypus, whilst we must state that the presence of sensibility in the hypertrophied state of the os, is just as little to be relied upon."

Hypertrophy of the os uteri is much more frequently met with in the impregnated than in the unimpregnated state, for obvious reasons. It is a cause of tedious labour occasionally.

The practice to adopt in such cases is to press the protruding lip very gently upwards, and retain it there with the fingers during two or three pains. This is generally done, with ease, as the tumor usually remains up while the head presses downwards. Many judicious observations and directions follow, for which we have not room here. Like all Dr. Kennedy's communications, this paper is practical, and therefore highly interesting.

THE ANALYSIS AND MEDICAL PROPERTIES OF THE TEPID SPRINGS OF BUXTON: WITH CASES AND OBSERVATIONS. By Sir *Charles Scudamore*, M.D. F.R.S. 8vo, pp. 78.

Most of our readers must be well acquainted with the name of Sir Charles Scudamore, and know his professional ability well enough to anticipate merit in any work from his pen. They will not be disappointed on perusing this little *brochure*, which makes us well acquainted with that rising watering-place for invalids—BUXTON.

The waters of Buxton are tepid. They have been and are employed both as a drink and a bath.

The former is brought from the spring of St. Anne, through a sand-stone channel to its basin, the "well." In it's passage from the spring it looses five degrees of temperature; being at the head of the large bath 82°, but in the basin, 77°. It also loses a considerable portion of free azotic gas.

Analysis of the Water.—The composition, if Dr. Scudamore and Mr. Garden are correct, is, in one gallon of the water,—

Of gaseous contents,	Cubic Inch.
Carbonic acid	1·50
Azote	4·64
	6·14
Of solid contents,	**Grains.**
Muriate of magnesia	·53
——— soda	2·40
Sulphate of lime	·60
Carbonate of lime	10·40
Extractive matter, and a minute quantity of vegetable fibres	·50
Loss)	·52
	15·00

"Such, then, are the results of the direct method of analysis by evaporation; but I must not omit to offer a statement of the composition of this water according to the ingenious and original views of Dr. Murray.* The chemical reader will remember, that his theory requires us to consider that the saline principles of a water really exist in that state of combination which forms the most soluble salts; and not in the condition of salts very little soluble as ordinary analysis represents, and which is to be explained by the reaction of the elements of acid and base, which takes place during the process of evaporation.

According, therefore, to this mode of estimation, the constituents of the water in a gallon will appear to be as follows:—

	Grains.
Sulphate of soda.	·63
Muriate of lime	·57
Muriate of soda	1·80
Muriate of magnesia	·58
Carbonate of lime .....10·40	
Extractive matter and loss.... ..	1·20
	15.00"

It is perplexing to those who attach much faith to waters like Buxton, that the active ingredients contained in it are so trifling. Their ingenuity is tasked to reconcile the constitution with the efficacy of the liquid. It is difficult, for example, when we look on the following analysis of Thames water, and remark its similarity of composition to that of Buxton, to *explain* the medicinal virtues of the latter.

Thames water contains, of solid ingredients, the following quantity in a wine gallon:

	Grains.
Muriate of magnesia	0·28
——— soda	1·40
Sulphate of lime	1 44
Carbonate of lime .....11·80	
Silica and carbonaceous matter....0·30	
	14·22
Loss .....·28	

"I am disposed," says Sir C. Scudamore, "to attribute the utility of the Buxton water to its purity, its tepid temperature presented by the hand of Nature, and, above all, to its gaseous impregnation. I believe that the influence of azote, taken into the stomach in a state of solution in water, is very considerable."

Effects of the Water. As chemistry does not very clearly tell us what they should be, we may inquire of experience what they are. Experience replies, through the mouth of our author, that, simple as the Buxton water appears, it does prove inconveniently stimulating to some persons of full habit and of the sanguineous temperament They complain of flushing, head-ache, and slight giddiness, and are deterred, by such symptoms, from proceeding in the course of drinking it. Many instances have come under his observation in which the exciting power of the water has been proved in the gouty patient; symptoms of a paroxysm having occurred in a few days after its commencement; subsiding, also, upon its being discontinued, and from the aid of medicine.

* "Trans, R. S. Edin. vol. viii."

Others, and those especially who have a weakened condition of the nervous energy and of the muscular power of the stomach, complain that the water is felt as a dead weight on the stomach, that it is slow in passing off, and that, until it does so, they are much oppressed and inconvenienced.

These, however, are the exceptions, and not the rule; for, in general, the water agrees remarkably well, and is drunk freely without any unpleasant result; but, on the contrary, with benefit and satisfaction.

It seems doubtful what effect it has upon the bowels—probably it has next to none. But the action of the water on the kidneys is sufficiently remarkable, and, in general, is promptly shown. In delicate cases of dyspepsia, or indigestion, the good effects on the stomach are often experienced very quickly, and shown in the improvement of the appetite and digestion. Our author adds,—"I view the remedy, altogether, as a very useful stimulant aqueous diluent: and always admissible, unless the inflammatory diathesis be present or a plethoric state of vessels forbidding any physical cause of excitement."

As a *bath*, the Buxton water receives warm encomia from Sir Charles.

There are five distinct natural baths appropriated to the use of the visitors and invalids, three for gentlemen, and two for ladies. There are two charity-baths for the infirmary patients' and a plunging bath of the temperature of 60°.

The temperature of the gentlemen's public bath is 82°, and of the apartment 72°. It contains 8612 gallons. After being completely emptied, it fills again in rather less than two hours and a half.

The temperature of the private bath is 81½°, and of the contiguous dressing room, 74°. This bath is supplied from the reservoir of the public bath. It contains 1550 gallons, and fills, again, after being entirely emptied, in twenty minutes.

The new bath is also supplied from the reservoir, and, being farther removed from it than the private bath, loses more temperature. It varies, according to circumstances, from 80° to 81°; the temperature of the apartment is usually 70°. It contains 6291 gallons. It fills again, after being quite emptied, in two hours and a half, and it is calculated that it changes itself in three hours.

The large bath on the ladies' side, over the spring, is 82°; but the private bath, which is supplied from the reservoir, is 81°, losing a degree in its course.

There is one charity bath for the use of the men, and another appropriated to the female patients. The men's bath is 10 feet 8 inches by 10 feet; the depth, 4 feet 8 inches. Its temperature is usually 81°.

The women's bath is about the same dimensions; but, being farther removed from the reservoir (that of the ladies's public bath), it varies in temperature from 77° to 80°.

The gas which rises in the form of bubbles through the public bath is incapable of supporting combustion. A lighted taper immersed in it was instantly extinguished. With a portion of this gas, no change of volume was produced either by lime-water or barytic water; and, although mixed with an equal volume of atmospheric, air, it almost instantly extinguished a lighted taper without the least explosion.

Our author argues in favour of the superiority of a natural over an artificial tepid bath, and he points out the happy temperature of that of Buxton.

"The eminent claim of the Buxton bath, as possessing highly tonic and restorative qualities, will not be disputed by those who have had the opportunity of putting its powers to the test; and the opinion of those who are unacquainted with it, either from observation or trial, is not worthy of regard. Neither in this country nor in Germany is a similar bath to be met with, so happily intermediate in its temperature (82°), between the warm and the cold. One obvious and important advantage derived from a spacious natural bath of this temperature, over a confined one at the same degree of heat, consists in the opportunity which it allows of free motion, and which materially assists to

keep up that force of the circulation consequent to the heart's re-action which ensues to the shock from the first immersion. It is indeed that very desirable medium of temperature between the warm and cold-bath, neither exciting by too much stimulus of heat, nor depressing by too much sedative influence of cold, which renders it so favorable a tonic to weakened limbs, and also to the whole body. The uniformity of temperature, never varying either in the hottest day of Summer, or the coldest in Winter, in so large a body of water, could not be imitated in an artificial bath; besides which, the qualities of the water itself must not be overlooked. The skin is not only a very extensive surface, but highly sentient; and an entirely different impression is made upon it by a sea-water bath by one of sulphuretted hydrogen, by one highly charged with carbonic acid, by saline water, and by others which might be mentioned."

Dr. Saunders compares the sensation occasioned by the Buxton bath to that of being anointed with warm cream! Sir Charles thinks this imaginative.

The complaints to which the bath is applicable are, gout and rheumatism in their chronic form, and with proper restrictions and reservations—neuralgia, with proper restrictions too—perhaps in paraplegia—directed by the forcing pump, in enlargements of the bursæ, and in cases of weakened ligaments—and in paralysis of a cerebral origin, it would be dangerous to recommend it.

Such are the main precepts in this little book. There are many cases, added in accordance with the maxim of Seneca—"Longum iter est per precepta, breve et efficax per exempla."

To the visitor of Buxton, this book will be acceptable. To our readers, the contents which we have extracted will be useful. The author has made himself thoroughly acquainted with his subject, and the general experience of the physician is augmented and corrected by the local information of the resident.

Principles of General and Comparative Physiology, intended as an Introduction to the Study of Human Physiology, and as a Guide to the Philosophical Pursuit of Natural History. By *William B. Carpenter*, M. R. C. S., and Lecturer on Forensic Medicine in the Bristol Medical School. Octavo, pp. 478. Six Plates. 1839.

The objects of this work are stated by its author in his Preface, and may be amply understood from an enumeration of its contents.

"It is now," he says, "generally acknowledged that Physiology can only be properly studied by a constant reference to the comparative structure and functions of many different classes of Animals; and in most of the recent works on this Science, an outline of the development and actions of each system in the inferior tribes is prefixed to the details relating to its condition in man. This outline is filled up in the present volume, not only by amplifying the portion of it which relates to the Animal Kingdom, but also by the introduction of a similar view of the comparative structure and functions of Vegetables, which is here shown to be governed by the same laws. It is this which constitutes the peculiar feature of the work; as the author believes it to be the first attempt, in this country at least, to form anything like a systematic Comparative Physiology of Vegetables. The translation of the elaborate Comparative Physiology of Tiedemann would, indeed, have occupied this ground; but it is still incomplete, and is likely to remain so; and the mass of details which it embraces, unconnected by comprehensive principles, renders it most tedious and embarrassing to the student. From that most valuable storehouse of *facts*, the present volume differs essentially, therefore, in plan; this being devoted to the explanation and illustration of general *laws*."

It is addressed, not to the professional reader or the student only, but aims at engaging the attention of the public, not excepting the ladies.

"Although his work is especially intended as an Introduction to the Study of Human Physiology for the use of the medical student, the author has kept in view the wants of the general reader, to whom he hopes to make intelligible some of the highest doctrines in this most interesting science. For this purpose he has given explanations of most of the scientific terms employed, in the situations where they could be most appropriately introduced; and reference to them is facilitated by the copiousness of the Index, which thus serves the purpose of a Glossary. He has also expressed himself in general terms in some instances where more detail might otherwise have been admitted; but he trusts that he has, by this means, avoided all chance of offending the true delicacy even of the female reader."

The author does not pretend to originality, yet he claims the merit of comparing, and hints at that of adding facts, and of course opinions.

"Whatever claims to originality the present Treatise may possess, the author is not disposed to put them forwards here. He has not hesitated to employ the language of other writers in the description of facts, wherever it seemed appropriate; deeming it useless to alter, for the mere sake of rendering it his own, that which may be regarded as common property. But he believes that he has never employed the *ipsissima verba* of others in the expression of opinions, without acknowledgment. The *facts* for which he holds himself responsible may, in general, be readily distinguished. The degree of novelty which any of the *inferences* from them may possess, he is content to leave it to his readers to estimate."

The work consists of an Introduction and of Two Books. The Introduction is devoted to Organised Structures—the First Book to General Physiology—the Second Book to Special and Comparative Physiology.

The Introduction presents eight sub-sections—the first Preliminary Remarks—the second, on Organized Structures in General—the third, on the Elementary Structure of Vegetables—the fourth, on the Elementary Structure of Animals—the fifth, on the Transformation of Tissues—the sixth, on the General View of the Vegetable Kingdom—the seventh, on the General View of the Animal Kingdom—the eighth, on the Symmetry of Organised Structures.

The First Book, that of General Physiology, contains four chapters—the first, on the Nature and Causes of Vital Actions—the second, on Vital Stimuli—the third, on the General Laws of Organic Development—the fourth, a General View of the Functions.

The Second Book, that of Special and Comparative Physiology, contain thirteen chapters—the first, on the Ingestion and Absorption of Aliment—the second, on the Circulation of Nutritive Fluid—the third, on Interstitial Absorption—the fourth, on the Nutrition and Formation of Tissues—the fifth, on Respiration—the sixth, on the Exhalation of Aqueous Vapour—the seventh, on the Secretions in General—the eighth, on the Evolutions of Light, Heat, and Electricity—the ninth, on the reproduction of Organised Beings—the tenth, on the Subordinate Laws regulating Reproduction—the eleventh, on the Sensible Motions of Living Beings—the twelfth, on the Functions of the Nervous System—the thirteenth, of the Marks of Design in Organised Structures.

We may well be excused from entering into a detailed analysis of such a work. There can be no doubt that one of this description was wanted—there can be little question, that Mr. Carpenter's supplies the desideratum very fairly. It is well enough adapted for students, and for those, whether in the profession or out of it, who, not making general physiology their study, and unable to go deeply into its facts, yet desire a moderate acquaintance with it. To all such, and they are many, this work will recommend itself, by its simple and perspi-

cuous manner, and its philosophical spirit. To all such we can recommend it, and we will add that it deserves a place in every professional library.

Our readers will remember, that, in our last number, we put together a few of the favourite vital principles, and, marching them in a row, shewed the sort of regiment that they made. Mr. Carpenter devotes a chapter to the same subject, and, as it were a pity not to bring up the current knowledge to the latest and newest of the thousand-and-one theories of life, we should hold ourselves inexcusable did we pass Mr. Carpenter's in silence.

On the Vital Principle.

The principle on which Mr. Carpenter starts in determining the stuff the vital principle is made of, is pretty explicitly stated in the very commencement of his chapter.

"There is no department of philosophy around which so much unnecessary mystery has been cast, as the investigation of the character and laws of the Phenomena of Life. And this veil of mystery will long continue to baffle the curiosity of those who have not received, either directly or indirectly, the mental training which the pursuit of Physical Science affords. To designate any of the actions of a living body,—whether its reception of food from without, its conversion of that food into the materials of its own structure, the movements of its parts upon one another or of the whole fabric, its production of other beings like itself,—as *vital*, or as effected by the *vital principle*, has long been regarded as placing a sufficient check upon further enquiry. The history of Physical science shows, however, that it was once labouring under the same restraint, and that, until the true objects of investigation were understood, scarcely any advance was made. Thus, in past ages, all the phenomena of the movements of the heavenly bodies were attributed to the operation of some vague 'principle of motion,' the laws of which it was considered impracticable to attain. In like manner, the simple optical fact—that when the sun's light passes through a hole, the bright image, if formed at a considerable distance from it, is always round, instead of imitating the figure of the aperture, was attributed by Aristotle to the 'circular nature' of the sun's light; whilst the simple consideration, that the rays of light travel in straight lines, would, if properly applied, have explained this phenomenon, not only as regards the sun, but in the case of any other round luminous body placed at a sufficient distance To refer all the operations of Life which cannot be explained by physical laws, to a 'Vital Principle,' is in reality to proceed just as unphilosophically as the ancients did in the cases just quoted: since a strict examination into their character will shew that, although not *identical with* physical phenomena, they are *analogous* to them; being the results of the operation of the vital properties which are peculiar to organised matter, just as the physical changes of inorganic matter result from the operation of its mere physical properties. The characters and laws of these Vital properties are as open to investigation as those which give rise to the phenomena of Gravity, Electricity, or Magnetism; although more difficult of attainment, owing to the intricacy of the combinations in which the results are presented to our observation."

Thus vital properties are a result of organisation, just as physical properties belong to matter unorganized; and vital principle means no more than the results of the operation of the vital properties consequent on organisation. This directly affirms, of course, that there is no immaterial Vital Principle. But the Vitalists will say, and Mr. Carpenter of course admits, that affirmation is not proof. Accordingly he proceeds to argue against the idea of a Vital Principle, a something intelligent which controls physical laws.

"No reflecting mind has any doubt that this earth and its inhabitants form a system, of which every part is perfectly adapted to the rest, (so that we might almost call it an *organised* one, if the idea of a particular structure were not involved in the term,) and of which all the actions and changes, however in appearance contrary, have one common tendency, the ultimate happiness of the creatures of Infinite Benevolence. It cannot be regarded as an improbability that the other spheres and systems,—whose countless multitudes, revealed by the aid of science, impress our minds with the nearest conception of infinity of which our finite comprehension is capable,—are peopled with beings, if not similar in structure with ourselves, at least equally worthy of the Creator's care."

"Should we not consider it degrading to the dignity of Infinite Wisdom to suppose that at the creation of each world, He had found it necessary to delegate to a subordinate the control over its working,—instead of at once impressing upon its elements those simple properties, from whose mutual actions, foreseen and provided for in the laws according to which they operate, all the varieties of change which it was His intention to produce, should necessarily result?"

This line of argument is open to the objection, that, appealing to men's fancies as a test of truth, no certain standard is set up or can be got. One man may conceive an immaterial or a subtle principle, superadded to matter, more godlike than a mere modification of some common property of matter. Another man may be of Mr. Carpenter's opinion, and esteem the latter the more divine artizanship. It is a knotty point to settle, for a great deal may be said by a clever advocate on either side.

Having shewn that the Deity merits more admiration on his hypothesis, than on the vitalist's hypothesis, Mr. Carpenter turns to man himself, and applies the same salve to *his* wounded vanity.

"The harmony of means and ends is shown in the structure of the universe, not less than in the adaptation of the parts of a single organised being to one another. And if the actions of the former can be reduced to simple and general laws, which are but expressions of the Divine Will, there is nothing absurd or unphilosophical, or derogatory to the dignity of living beings, in the belief that those of the latter may be ultimately placed on the same footing. For if we come to enquire into the functions of any single organ, or, in other words, into the nature of the changes produced by it, we find that it may be referred to the property of the structure, manifested or called into action by a *stimulus* of some kind, to which it is expressly fitted to respond."

There is certainly nothing absurd or unphilosophical in *supposing* that the laws of organisation may *ultimately* be reduced to the simple and general code of matter. But, with all deference to Mr. Carpenter, we do not think it quite philosophical to *believe* this, in the present state of our knowledge. Belief, at least rational belief, implies conviction—conviction should be consequent to proof—but the proof of what we are now asked to believe is, we fear, a little questionable. Mr. Carpenter indeed acknowledges, nor could he well do otherwise, that, besides the properties of inanimate matter;—

"There are others which are exclusively confined to organized tissues; and if we compare these with the general structure of the fabric, we shall find that its mechanism is adapted to bring them into the most advantageous relation with one another. Thus, the circulating system is a piece of apparatus which acts chiefly upon physical principles, the fluid impelled by the heart moving through its ramifying canals, just as water ejected from a forcing pump might traverse elastic tubes of similar construction; and its object is to bring the alimentary materials which have been absorbed, into contact with the tissues whose nutrition they are to supply. The powers which move the blood may altogether result from vital operations; yet the motion itself is strictly conformable to physical laws."

So far then there is a distinction between the laws of living matter and of lifeless. Mr. Carpenter seems to think that he has shewn the absurdity, as well as the inutility of a vital principle. We do not exactly see that. We do not mean just at present to contend for a vital principle—that is not our object; but in fairness to it and its supporters, we do not quite perceive how Mr. Carpenter has demolished it.

"If the application of the term *Life* to some imaginary agent which is the immediate cause of vital phenomena, be found useless or injurious, it may reasonably be enquired what is to be understood by it. If we regard as a *living* being, an organised structure which we observe growing and moving and resisting decay, it is evidently no improper use of the term to designate by it the *sum of all the actions* performed by such a being, from its first production to its final dissolution. Observation of these actions leads us to arrange them, as has been already stated, into certain groups termed Functions; and analysis of the functional changes exhibited by living beings, terminates in referring them all to certain properties possessed by their component structures; which properties stand in the same relation to organized tissues, as do those of gravitation, electricity, &c., to matter in general. Their existence must, for the present at least, be regarded as ultimate facts in physiology. They are called into action by *stimuli* of various kinds, adapted to excite each of them to its own peculiar operations. Now, although the adaptation of the various functions to one another, and the manifest tendency of all the vital processes to a common end, would appear, at first sight, to favour the idea of a presiding power by which the whole is regulated; a little consideration will shew that these *really* imply no more than an original adaptation of the structure and properties of the organs by which they are performed. Every tissue has its own laws of development, (some of which have been glanced at in the Introduction, III—v); but all these laws are subservient to one general principle,—that every organised structure is produced by a previously-existing organism, no living being ever taking its origin from spontaneous combinations of inorganic matter."

Thus life, "the sum of the functions," may be resolved into the properties of the organised tissues—into the contractility of muscle, the sensibility of nerve, &c. But it will be asked, how come these tissues by their properties? Mr. Carpenter answers:—

"The fundamental uniformity in the changes which the animated world presents, is no less striking, when the superficial or apparent varieties are stripped off; and this becomes most evident when we trace back each individual race to its origin. If we conceive that at that period the Parent of all impressed upon the elements of which each created being was composed, the spirits of the laws which should in future govern its growth and reproduction, (just as He impressed upon the bodies composing the planetary system, that mode of action whose subsequent continuance has given us the notion of the laws of gravitation and of motion), we require nothing but the continued operation of those laws, or, in other words, the continuance of the same mode of action, to account for the perpetuation of the race. To suppose that the adaptation of these laws to each other and to those of the external world, could be otherwise than perfect, would be to cast a stigma upon Infinite Wisdom. What they are, it is the object of the physiologist to ascertain by observation and generalisation of the phenomena resulting from them, and he certainly will not derive any assistance by setting out with the notion of a secondary presiding existence, however refined he may imagine its character to be."

Such, then, is Mr. Carpenter's theory of life. Not very new, it must be owned—nor very conclusive, because nothing is proved—nor satisfactory, because it leaves all the difficulties where they were.

That nothing is proved is evident. Not only are there no new facts, but there are not even any new arguments. And as there was no proof of the nature of

vitality before, and nothing is added now, it is clear that no proof has been obtained.

That the theory is not satisfactory is also evident. The great difficulty was to account for the same elements displaying such great differences of properties as they do, in the forms of organic and inorganic matter. To say that the Deity willed it, is to say no more than every man not an atheist always believed. To the theist it is unsatisfactory, because it merely tells him what he ever thought, and does not explain the mystery. To the atheist it is equally unsatisfactory, because it merely says to him dogmatically, he is wrong.

The fact is that the whole Chapter is little better than a logomachy. It wars upon the *words* "vital principle"—says, but does not prove, that there is no immaterial something added to organisation—and blinks the great difficulties that have perplexed the ingenuous and encouraged the sophistical physiologist.

We need not profess our own firm conviction of the operation of Divine Power, in conferring the vital properties on organic matter. For that we have contended as warmly and we hope at least as efficiently as Mr. Carpenter. But the how, the where, the when, questions on which he does not scruple to dogmatise, are flights, too high, or depths too low, for our timid philosophy. We have never yet derived much instruction, we may occasionally have drawn some amusement, from these disquisitions on vitality. They have indeed informed us of one thing, the presumption of some men, and the ignorance of all. But beyond this we have obtained, and expect to obtain, no light from researches into subjects beyond our finite comprehension—researches begun in fancy or in scepticism, and ended in mysticism, dogmatism, or nonsense.

ON VACCINATION. By JOHN ROBERTON, ESQ. MANCHESTER.

The greater part of this pamphlet is occupied with an historical chart of small-pox inoculation, and cow-pox, from the eighth or ninth century down to—the last report of Dr. Gregory. Few, we fear, will now have leisure or inclination to go over a field, which has totally lost every particle of interest. The only question that excites attention to the subject at present, is the efficacy or inefficacy of vaccination—and even *that* is carried *ad nauseam* in the weekly journals by a host of scribblers. As a relief to the dulness of the subject we shall extract the following passage from a Spanish journal, in which the famous Island of Barataria has once more obtained "a local habitation and a name," and become the scene of a fiction somewhat different from that which Cervantes drew a few centuries ago:—

"The Island of Barataria contains 10.000 inhabitants, and the population is said to be stationary, as, indeed, has been the case for half a century and upwards. No strangers during that period have entered it as settlers, nor have any of the natives emigrated. The births and deaths, it is to be inferred, therefore, are equal. The police of the Island is wonderfully exact in several respects, but chiefly in the care taken during many years to have the inhabitants at an early age inoculated for small-pox. Every child who lived to the age of a few weeks was inoculated. But the king of Barataria, an enlightened prince, readily adopted the Jennerian discovery; for he decreed, that on the 1st of January, 1805, vaccination should be substituted for inoculation, the operation to be performed about the same age as it had been for the latter. As the police was humanely vigilant, not a single infant could escape being vaccinated. Great was the satisfaction of the inhabitants on finding they had exchanged a loathsome disease for one so mild; and in the first emotions of gratitude they sent to Jenner, in the name of their king, a valuable present of oil, worth upwards of £2000. [Dr. Baron appears to have been ignorant of this munificent

act of a poor but grateful people towards the benevolent Jenner, for I do not find it recorded in his recently completed Life.] At considerable cost, also, they erected a monument to his honour in the market-place of their town.

For several years the cow-pox maintained its reputation unsullied. True, indeed, one or two cases of small-pox in those alleged to have been vaccinated occurred, raising some consternation at first; but these were on what seemed good evidence, traced to the carelessness of Docter Josephus a Doloribus, the authorized vaccinator for the district of Lavajoz (where all the supposed failures had taken place), who was, in consequence, condemned to receive the bastinado, and to lose his left hand. In 1810, however, the son of one of the grandees, who had been carefully vaccinated by the king's physician, was seized with small-pox, and with such severity that he remains pitted to this day. From that time to the present, instances of small-pox after vaccination have occurred, and with increasing frequency. In 1834 the numbers attacked in different quarters of the island were so considerable (about twenty in all) as to lead to the issuing of a royal commission to make full investigation and report to the king. This was the more necessary, because of the great number of conflicting pamphlets published on this question by the doctors of medicine, whereby the minds of many were unsettled, and faith in the vaccine discovery considerably shaken. These writers differed widely in opinion among themselves. One maintained that the vaccine virus when inserted into the arm of an infant by scratches with the horn of a beetle, affords complete and permanent protection against small-pox. Another attributed the failure to the virus not being taken from the pock at the proper time; asserting that it should be taken, not exactly on the eighth day of the pock's age, but after eight days and one hour. A third thought that new matter ought to be raised from the goat, from time to time, by inoculating that animal with the virus of small-pox. A fourth pronounced vaccination of no use or value whatever. The opinions of the rest it is needless to give. We will not trouble our readers with more of the commissioners' report that what refers to one or two points, and chiefly to one comprised in the following question:—'Since it cannot be denied that instances of failure in reference to the power of vaccination to afford protection against small-pox, have occurred in this island, and are becoming more frequent than formerly, can such a fact be explained on grounds which do not seriously affect the credit of the Jennerian discovery? In reply the commissioners remark that too much has been expected from the vaccine discovery, (if, in truth, it be possible to overvalue a discovery so fraught with blessings to mankind); that unquestionably the having passed through one attack of natural small-pox never did absolutely shield, in all cases, the same individual from a second, and therefore to expect from vaccination complete protection against the small-pox, in all constitutions, is unreasonable; that, however, vaccination does appear to protect in most instances, probably in ninety-five out of every hundred persons vaccinated; that when it fails in affording protection, it in general lessens in a remarkable degree the violence of the subsequent attack of small-pox; and, lastly, that with respect to a steady annual increase in the number of cases of failure, as alleged by several eminent doctors, such was to be expected: the number of vaccinated persons in the island being annually on the increase, of course a larger proportion of the population annually becomes liable to modified small-pox. Indeed, it must be self-evident, the commissioners remark, that so long as vaccinated persons are being annually added to the previously existing numbers of the vaccinated, failures may be expected, in the same ratio, to increase. As such statements admit of tabular illustration, the commissioners have prepared the following tables with a view to illustrate their meaning:—

TABLE FIRST.

Shews the number of the vaccinated alive in the island of Barataria, at different periods, from 1806 to 1835.

Anno Domini	
1806, the vaccinated then living were	286
1808	713
1810	1172
1815	2186
1820	3179
1825	4087
1830	4921
1835	5690

TABLE SECOND:

Assuming that five per cent. of the vaccinated are liable to small-pox (and there is no sufficient evidence to prove that even so large a per centage is liable), the following table shews the number of cases of small-pox after vaccination that would have occurred in the island, at each period, from 1806 to 1835, provided all had been seized who were liable:—

Anno Domini	
1806, the number seized with the small-pox after vaccination	14
1808	35
1810	58
1815	109
1820	158
1825	204
1830	246
1835	284

Concerning the question, now so generally agitated, whether the vaccinated after a certain interval of time, cease to enjoy protection against small-pox, and hence ought to be vaccinated afresh, the Report is full, rather than satisfactory. The commissioners say that hitherto, on this part of the enquiry, we have had assumptions and conjectures, but no well-ascertained body of facts; for, first, it is not fact but conjecture, that the protective power of cow-pox gradually ceases in the human system: second, it is not fact, but conjecture, that a person successfully re-vaccinated is less liable to the small-pox than he was before; and third, to affirm that when re-vaccination fails in individuals, they are thereby proven to be secure from small-pox, is still, in the present state of our knowledge, to affirm what is mere conjecture. The Report concludes in these words:—'In order fairly to test the use and value of re-vaccination, we recommend that registers be kept by the medical staff of all regiments, and ships of war, as also by the heads of all public schools, academies, and colleges, in which the names of the vaccinated shall be inserted in two separate equal classes; that the one class consist of such as are not to undergo a re-vaccination; the other, of those who shall be re-vaccinated as soon as registered. At the end of every seventh year the results to be ascertained—that is, whether the re-vaccinated class is wholly protected against the small-pox, or protected in a larger proportion (and if so, in what) than the other class. Various other methods of investigation and experiment will, no doubt, be necessary. We have here, as we believe, indicated the true line to be pursued, by which ultimately, valuable data may be obtained. But it is a capital error to suppose, as many do, that a really valuable and trust-worthy body of facts will be soon accumulated, under even the most favourable auspices; or that any valuable results whatever, on a question demanding inquiries and experiments so extensive as this, will ensue from private, isolated, individual efforts. Rather, it may be expected, judging from all former experience, that such separate, petty efforts, by their jarring and discrepant results, will retard the progress of true enquiry."

Mr. Roberton criticises pretty sharply Dr. Gregory's reports, as published in the Medical Gazette; but the Doctor is able to take his own part, and therefore we shall pass the critique over. We must say, however, that it contains many excellent observations and ingenious elucidations.

The Physiology or Mechanism of Blushing; illustrative of the Influence of Mental Emotion on the Capillary Circulation; with a general View of the Sympathies, and the Organic Relations of those Structures with which they seem to be connected. By *Thomas H. Burgess*, M.D. &c. &c. 8vo. pp. 202. Churchill, 1839.

This is an elaborate work on Blushing, and, if it has proved nothing more, it has shewn how much may be said on that subject, We had not an idea of its magnitude. Dr. Burgess informs us :—

"I shall endeavour to demonstrate the intimate connexion between the phenomenon of blushing and moral and physical science generally. With anatomy, in particular, I shall show its relations, in so far as the nerves, skin, and arteries are concerned; with physiology, as regards the mechanism by which it is produced; with comparative anatomy; with the natural history of the human species; and lastly with moral philosophy, in numerous interesting points of contact."

It is evident that no one unacquainted with blushing could be thoroughly conversant with either anatomy, physiology, comparative anatomy, natural history, or moral philosophy. Men ought to blush at their own ignorance. We are checked indeed in our aspirations for a perfect knowledge of blushing, by the awful sanctity which shrouds its penetralia. For blushing is linked with the operations of the soul, and who can venture on that sacred ground!

"In considering the physiology of blushing, the *effect* alone is what I wound presume to investigate; the *cause* which produces it, moral and otherwise, remains deep in the obscurity which still encircles the higher attributes of man. The entire phenomenon is certainly intimately connected with the *mens conscia recti*, with the soul, and as an investigation into the nature of this might prove dangerous, as it would certainly be fruitless, I have held it more advisable to leave it as among the dark mysteries of life, than to attempt fathoming an abyss that knows no limits."

The Poetry of Blushing.

A chapter is devoted to it, and Dr. Burgess revels with chaste gusto on the pages of most ancient and some modern bards, and on the soft brow of the Italian maid, where the eloquent blood mantles—

"———— giving warmth as it flies,
From the lips to the cheek, from the cheek to the eyes."

As we glide over his glowing page, we kindle to his own enthusiasm, and admit, with him, that Blushing may be styled the Poetry of the Soul; and that on it, as evidence of design, a Bridgewater Treatise *ought* to have been indited.

"If we reflect on that variety of changes and actions that must take place in our moral and physical constitution before either the *blush* of shame, or the *paleness* of fear, can be represented in the human face, we must clearly see that such adaptation and harmony of arrangement as here evinced, could never be the effect of *chance:* an the contrary, in every link of the chain which combines all the organs engaged in the production of these phenomena, there is a palpable

evidence of *Design*, it is another convincing argument proclaiming to the hearts of men that '*the hand that made them is Divine.*'"

That Blushing *is* an evidence of Design, appears to our author so undeniable, that he devotes a separate chapter to it.

"There are many whom corporeal punishment would not restrain from doing wrong; still the dread of remorse, of shame, or of being made *blush* hereafter for past conduct, will serve as a moral restraint; in many cases it will control the individual from violating the laws of morality, and thus affords us a beautiful instance of the design, wisdom, and goodness of Providence."

Unfortunately there is one objection to this hypothesis. Blushing is much more often the result of false shame and of timidity, than of real guilt—and it belongs to the young, rather than to the old offender. Thus, in proportion as villainy grows systematic and becomes dangerous, this providential check on it is less efficient. In other words, Nature has so botched the business, that just when we want her defences most they are of least service. Dr. Burgess himself admits:—

"Unfortunately, civilization or refinement seems to have perverted the original intent, if my hypothesis be correct; for now it is difficult to judge whether the blush be from an impulse of shame, or merely from a sensibility that is over-wrought; and if my judgment does not err, it is much more frequently the effect of the latter than the former."

Surely this might have opened the apologist's eyes to the petty attribute he gave the Diety. Such attributes are continually given to Him, by well-meaning but injudicious advocates, and the cause of true piety is most often damaged not by enemies, but friends. The theorist makes it ridiculous with his fantastic ornaments—the zealot renders it odious with his bloody dogmas.

It would be equally unlucky for the "divine" hypothesis of blushing, were the negro incapacitated for it, by his sable hue. That he is so incapacitated, common observation seems to prove. "How can those be trusted who know not how to blush? says the European, in his inveterate hatred to the Negro and the Indians." But Dr. Burgess fights with fervour against this imputation upon Sambo.

"When a true-born Negro blushes, his cheeks become darker still than natural, and this may be accounted for in the following manner:—

When the blood rises as far as the rete mucosum, (which is naturally black in this variety,) in place of the redness becoming apparent, as it does in the white, now from the dark veil placed before it, and through which it cannot pass, it only tends to render the surface of a deeper hue than before, for which purpose no colours are more adapted than black with a *red ground*, and M. Biett observes, 'that the red tint which characterizes the exanthematous diseases' in the Caucasian variety 'never exists in the Negro, in this case—on the contrary, the black tint is more evident than before.'"

To "look black" is a common imputation upon temper. It would now appear to be a proof of negro modesty. Yet Dr. Burgess contends that it is a guage of reason. "It is evidently," says he, "an attendant upon Reason, and according as the latter is cultivated, so the former becomes developed." If this be so, civilization and reason pull contrary ways; for Dr. Burgess has already told us, that, as civilization advances, the noble prerogative of blushing retrogrades.

Who, that has seen the Critic, does not know the different varieties of Puff—who, that has walked the streets of London, has not practised, or suffered the various species of cut? Similar species and analogous varieties of blush may be discriminated by the keen eye of a florid physiologist.

Dr. Burgess divides the blush into the True and False.

"Under the head of the True Blush we may place all those changes or variation in colour which take place on the check, having some good and substantial

moral cause for their production, as an infringement upon the *feelings* by the recollection of some past *malheur* or disgrace, the convictions of conscience,&c. Under the head of the second or False Blush may be placed all those which have no other assignable cause for their production than that of an extreme state of morbid sensibility, over which reason and the moral powers seem to have no control whatever; for, as I have already stated, no individual blushes of his own free will, as he knows it must put him to a certain degree, in a painful position."

Of the *true* blush he says we must admit the utility, nay the necessity, in society; and this Dr. B. derives from Providence He tells rather a good story of the *true* blush and animal magnetism. We need not say that they were *versus* one another.

The *false* blush appears to Dr. Burgess in the shape of a very considerable bore.

"It may be observed in all grades and stations of civilized beings, from the first dawning of reason till its extinction in old age; it is hereditary, it pervades entire families; it restrains some, it infuriates others, at being thus made subordinate to the mental feelings, and wherever it once takes root, like the Old Man of the Sea, it clings to the individual through life with a resolute and imperishable grasp."

Gracious heavens! If the *true* blush be given by Providence, we may certainly thank the Devil, as honest Baxter would, for the *false* one.

But our author thinks it requisite to go a little farther, and separate the "Hectic Flush," and the "Flush of Rage" from blushes of both sorts. As they are not likely to be confounded even by the unlearned, we must be under the necessity of omitting their consideration.

A chapter is occupied with a Theory of the Mechanism of Blushing. It would occupy some time to develope it as it deserves, but some idea of it may be obtained from the following eloquent passage.

"Does the phenomenon of blushing come under the head of the '*passions*,' commonly so called—or, in other words, is it the *effect* of passion? According to my view, it is evidently most distinct from what we understand by the term —it is 'moral' or 'spiritual,' not animal; and when we speak of it, in relation to *the* passions, we should affix to it either of the foregoing prenomens in contradistinction to those common to us with the brute. Blushing cannot be excited by *physical* means—not so with the passions. We can make an individual laugh against his will, by tickling the soles of his feet—we can make him cry by corporal punishment—we can make him tremble with fear by the same means—we can rouse his anger by striking him—but we can only make him blush by appealing to his conscience. No physical means can produce this phenomenon —it must be solely a moral stimulus that will excite a true blush—an appeal from the being spiritual, from the '*divinity which stirs within us*,' to the organic sensibility of other vital parts of our system, which readily sympathize with the soul's emotion in giving external evidence, by the tint of the cheek, of what is going on internally in the *moral sanctuary;* and, what other evidence could be more eloquent than that which comes *gushing* from the heart?"

That the state called blushing is occasioned by some mental emotion or impression, there can be no doubt, and that the brain and nerves are the primary agents there can be as little. The *mode* in which the nerves act on the capillaries of the cheek in shame, it is quite useless to inquire. We never can discover the quo modo. How does fear blanch the same part of the face? The human face, but especially the eye, is ordained to be the index of expression, but *how* we know not, and never will know.

"The exciting impression is first received by the sensorium, which physiologists now admit to be situated in the brain, the *mind* reflects upon the nature of the exciting *cause*—a train of ideas is generated and passed in review before the

reflecting faculties (the *mind's eye*). The *conscience* becomes roused, and the impression first conveyed to the sensorium is now submitted to it for final judgment: it is here weighed in the balance (I am speaking of the true blush—the blush of shame). If the mind be susceptible, and if the memory recals and brings before the sensorium the recollection of past circumstances inimical to the moral feelings, and perceives in them an identity with the present; or if the *conscience* itself sees in the exciting impression conveyed to the sensorium at first, a just evidence of an infringement upon the laws of morality, it *repels* the impression, and promulgates to the different *vital* organs in the system its own feelings. Thus the chain of action is set up which is finally to bring forth the blush on the cheek.

But if the first impression be feeble so as only to excite a partial emotion in the mental faculties, (as takes place in those instances of *suppressed* blushing, where the individual experiences all the *preliminary sensations;* but still the impulse is not sufficient to produce the phenomenon,) the cheek will not become suffused. When the appeal to the *conscience* preponderates (the infringement on the moral and social laws being weighed in the balance) the individual concerned is perfectly aware, even some moments before-hand, of what is about to take place—*volition* is now forcibly called into action, and strenuously endeavours to avert the threatened and painful exposé of the CONSCIENCE and its feelings. It is in vain that the *will* struggles against the combined power of the mental faculties—nay, the very attempt to suppress the exciting impulse only adds new vigour to its involuntary movement, by retaining the impression still before the sensorium and conscience, which the latter indignantly endeavour to disclose, and finally succeed in transmitting their own impression to the different organs that sympathise with them during the production of the phenomenon."

We find that we must stop But, however we may have smiled at Dr. Burgess' enthusiasm, we cannot but approve of the vein of kindly feeling and the spirit of judicious direction which pervade his pages. The following remarks on the moral training of the young, and the prevention or cure of false shame may well merit the attention of parents.

"It is vain to suppose that by constantly reproaching and upbraiding children or young people for shyness or timidity, you will remedy these evils. The fault is not theirs; on the contrary, it is a natural defect, though frequently increased by bad management; and the very dread of parental reprovement which usually haunts the minds of persons so brought up, instead of obviating the baneful effects of sensibility, for which it was intended by the anxious parent, will be sure to excite that state of feeling on every opportunity, and when the individual himself may be using every endeavour to suppress it.

"If young people," he continues, "when first brought into society, feel embarrassed or become suffused for trivial causes, (by no means an unfrequent occurrence,) and are afterwards rebuked by their parents for their shyness and awkwardness, they will constantly be in dread of committing the same *offence* again when similarly situated, and rather than run the risk of being taunted or laughed at, will naturally endeavour to avoid or shun *that* society, which instead of being a pleasure, is a continued source of painful restraint and exposure of their internal sensibility."

"When this 'mauvaise honte' appears, instead of ridicule and reproaches, I would recommend the utmost kindness to be shown, united with the exertion of every influence that may tend to inspire confidence.

We must conclude. Dr. Burgess will, we are sure, excuse us for a little badinage on a subject on which we could hardly be serious. But to use his own language, his book need not give him occasion for either a true blush, or a false. It is written with spirit—we feel inclined to add, with spirit that might be expended on more profitable subjects.

Lectures on the Principles and Practice of Midwifery. By *James Blundell*, M.D. formerly Lecturer on Midwifery and Physiology at Guy's Hospital. Edited by *Charles Severn*, M D. Registrar of the Medical Society of London. J. Masters, Aldersgate-street, London, 1839.

The editor informs us, in introducing his volume:—

"The accurate information this work contains, the lively, energetic, and agreeable manner in which that information is communicated, the vivid and ingenious illustrations of every part, and each division of the subject, are most admirable. The bold, fearless, and perfectly original proposals of novel modes of treatment, for diseases at the present æra usually considered irremediable, denote a consciousness of power, an independent and unshackled mode of thinking, and a mental superiority, which cannot fail to hand the name of Blundell down to future generations, as the Lord Bacon of our profession."

After such a panegyric it would be presumptuous in us to speak. We could not top this eulogy. Nor could we say more in recommendation of the work than the Editor, when he affirms, that, "the obstetric practitioner cannot conscientiously fulfil his important duties, or keep pace with the improved state of the profession, without making himself thoroughly conversant with the able directions contained in these lectures, wherein so unusual and perhaps unparalleled a portion of experience, genius, and invention are all made to bear on one engrossing subject."

We may add in a more sober vein of approval, that this is a good edition of Dr. Blundell's lectures.

A Manual for Students who are preparing for Examination at Apothecaries' Hall, or other Medical Institutions. By *William Meade*, Member of the Royal College of Surgeons, London. Henry Renshaw, 1839.

Mr. Meade is well known as a successful *Private Teacher*. Grinding is as familiar to him as household words. Who ever heard of *his* pupils being plucked at the College or Hall? Even the most *Powerful* rival cannot hold a candle to him. A volume from him is indeed a treasure. He tells us in his Preface,—

"The student in all schools will find in the present manual, not only sufficient knowledge to conduct him successfully through any medical examination, no matter where instituted, but a great deal of information which, it is hoped, will be useful to him in his subsequent career as a medical practitioner. No department of medicine has been neglected; no reference made to other works, for the purpose of supplying matter which ought not to have been omitted; Chemistry, Materia Medica, Toxicology, Anatomy, and the Practice of Medicine, have been all treated with equal care, to the extent which each department seemed to merit. In a word, the present Manual is distinguished from others of the same kind, by containing within itself a complete *epitome* of the knowledge which is usually required from the student at a medical examination."

To give our author his *meed* of approbation, the manual is really a capital one, and, were it duly studied, would do what this Prince of Grinders promises.

An Experimental Inquiry into the Laws of the Vital Functions; with a view to remove the Inconsistencies of our present Doctrines, and thus to establish more correct Principles respecting the Nature and Treatment of their Diseased State. By *A. P. W.*

Philip, M.D. F.R.S. L. & E. Fellow of the Royal Colleges of Physicians of London & Edinburgh, &c. 4th Edition. London: H. Renshaw, 1839.

Dr. Philip has made many additions to the physiological department of the present Inquiry since the publication of the last edition. In this, the greater and most important part of the practical department is, for the first time, offered to the public.

The "practical department" is contained in the Third Part. The great object of that Part is to shew that the means by which the removal of the inconsistencies, which clogged our knowledge of the general laws of our frame, influence the treatment of diseases, are referable to the three following heads:—

1. Our not being sufficiently aware, from a defective knowledge of the relation the various functions bear to each other, of the tendencies of continued states of chronic disease; in consequence of which, in a numerous class of such diseases, the curative stages are often allowed to pass disregarded.

2. The attention, in many acute diseases, from the same cause being often confined to the more evident train of symptoms; where the derangement has had its origin in a more obscure affection, without the removal of which that of the more prominent disease is impossible; and,

3. From our not having been aware either of the nature or most important functions of the nervous influence, or the seat of the organs, on which these functions immediately depend: we have neither been aware of many of the symptoms which indicate the failure of that influence, nor in possession of the most effectual means of remedying its effects.

Perhaps in a future number we shall return to the volume of the able physician before us, and examine his practical views in detail.

NATURAL HISTORY AND COMPARATIVE ANATOMY

I. A HISTORY OF BRITISH BIRDS. By *William Yarrell*, F. L. S. F.Z.S. Illustrated by a Wood-cut of each Species, and Numerous Vignettes, Van Voorst, London, 1839 Part XII. Price 2s. 6d.

II. ILLUSTRATIONS OF THE COMPARATIVE ANATOMY OF THE NERVOUS SYSTEM. By *Joseph Swan*. Part IV. Price 7s. Longmans. London, 1839.

The Part of the History of British Birds before us present to us the bullfinch —the pine grosbeak—the common crossbill—the parrot crossbill—the white-winged crossbill—the common starling.

The Part sustains the reputation of its predecessors, and the work, as it proceeds, loses none of its interest.

II. We turn to the labours of Mr. Swan. Labours, we may well term them, for the dissections from which these plates are taken must have cost an extremity both of trouble and of time. The present, the fourth Part, contains six plates.

The first (Plate XX.) exhibits dissections of the boa constrictor—the second, of the pelican—the third, of the goose—the fourth, the sympathetic nerve of the same bird—the fifth, the thoracic portion of the sympathetic nerve in the left side of the swan—the sixth, the nerves of the swan.

Of the execution, we have only to observe, that it equals that of the former productions of this author, praise of no mean quality. Yet, as a critic must say something, we would hint, that had the plates more the character of diagrams, and were every opportunity seized to attain distinctness, even at a trifling sacrifice of pictorial truth, their utility might perhaps be enhanced.

The Plates are indispensable to every antomical library. The facts they exhibit will always be of value for reference, and will redound, as they now do, to the reputation of Mr. Swan as a patient and expert dissector.

BOTANY.

I. Manual of British Botany; in which the Orders and Genera are arranged and described according to the Natural System of De Candolle; with a series of analytical tables for the assistance of the student in the examination of the plants indigenous to, or commonly cultivated in, Great-Britain. By *D. C. Macreight*, M.D. Fellow of the Royal College of Physicians, and Lecturer on Materia Medica and Therapeutics in the Middlesex Hospital School of Medicine. London, Churchill, 1839.

II. School Botany; or, an Explanation of the Characters and Differences of the principal Natural Classes and Orders of Plants belonging to the Flora of Europe, in the Botanical Classification of De Candolle. For the Use of Students Preparing for their Matriculation Examination in the University of London. By *John Lindley*, P.H.D. F.R.S. Professor of Botany in University College, London. London, Longman and Co. 1839.

III. Vegetable Organography; or, an Analytical Description of the Organs of Plants. By *M. Aug. P. De Candolle.* Translated by *Boughton Kingdon.* With Plates. Parts I. II. III. and IV. London, Houlston and Stoneman, 1839.

1. The first of these works is by Dr. Macreight, a talented physician. He informs us that his principal object in preparing it for the press, has been to supply the student in botany with a compendious means of distinguishing plants not only indigenous to Great Britain, but also those which are so generally cultivated as to be of much more common occurrence than the greater number of our native vegetable productions. The only works published in England with such intention are, the "British Garden," by Lady Charlotte Murray, and the "Natural Arrangement of British Plants," by Mr. S. F. Gray: the former including every hardy plant that has at any time been introduced into England, without an especial reference to those more commonly cultivated; the other containing the British plants, and a few only of those in use for agricultural purposes, but none of that numerous class which are solely cultivated for ornament.

In France, M. Duby, under the immediate direction of M. de Candolle, has published the "Botanicon Gallicum," containing, in conjunction with the native plants, the foreign ones which have become naturalised or introduced into general cultivation. Taking this work as his model, the author has been induced to publish a Manual of British Botany, modified to suit the state of botanical literature in this country.

We wish him success, and turn the work over to our botanical readers.

2. Of Mr. Lindley it is needless to say anything. His reputation guarantees the value of any work, however unpretending, from his hands. The object of it may be briefly stated and ought to be known.

By the regulations, so Mr. Lindly informs us in his Preface, of the University of London, it is required of all students, that, two years previously to proceeding to their examination for their first degree, they shall be examined, among other subjects, in "The characters and differences of the *principal* natural classes and orders of plants belonging to the Flora of Europe, in the botanical classification of De Candolle." See *Regulations of the University of London on the subject of Examinations for Degrees in Arts*, 1838, p. 4.

As this examination may be taken at the age of sixteen, it is necessary that boys should prepare themselves for it before they leave school, and therefore it will be a part of the duty of schoolmasters to cause their highest classes to be taught the kind of Botany required by the University.

The obvious purpose of this wise regulation is, to make young men acquainted with the names and properties of the common objects that surround them; to prevent their being thrown upon the world, as they often now are, ignorant of the commonest plants of their own country: and, in connection with this purpose, to oblige those who wish to take degrees in the University to prepare themselves properly for the kind of studies to which their attention is ultimately to be directed; so that, when they come to the higher branches of natural science, they may not then have to waste their time in gaining a knowledge of the most ordinary elementary facts.

"My experience," he continues, "in the art of teaching Botany, for the last ten years, leads me to believe it absolutely indispensable that a text-book for junior Botanical classes, calculated to show what is required and what is unimportant, should be published expressly to meet the University regulations. Hence the origin of the present little book.

In selecting the subject with which the student is to be made scientifically acquainted, I have generally chosen such as are nearly within any man's reach; and to render the acquisition of them the more easy, the vulgar names are added. A very small sum of money will enable every schoolmaster to cultivate all the species in a garden, where they may be constantly at hand.

In framing the technical characters of both genera and species, it has been my object to omit, as far as possible, all the more minute distinctions, the detection of which requires the aid of a microscope; on the other hand, I have particularly dwelt upon those which are obvious enough to be observed by any one having a pocket lens."

In conclusion, Mr. Lindly gives this advice:—

"I would particularly recommend the teacher to take care that, in addition to a small penknife, each student is provided with a pocket lens of about half-inch focus, and a few quires of brown paper; the former to assist him in examining, and the latter in drying, the fresh specimens of plants daily brought before him. There is no method so certain as the latter, to accustom young persons to estimate correctly the differences between one plant and another; and, I presume, no one will think of teaching Botany, without an ample supply of fresh specimens, which he may distribute among his class, for the purpose of being examined and studied at leisure. Indeed I conceive it useless for a boy to study Botany, unless this indispensable provision is made for his acquisition of those habits of observation which render natural history so peculiarly useful as a branch of mental training."

We need not say that to all teachers, and to all students, we recommend the book.

3. The third work on our list is deserving of all praise and of every encouragement. Being published in Parts it is accessible to the Botanist of very humble means, yet will be valuable to the richest. Who would not have the productions of De Candolle?

SPIRIT OF THE BRITISH AND AMERICAN PERIODICALS, &c.

On the Effects of Mental Attention on Bodily Organs. By Dr. Holland.

This subject occupies the 5th Chapter of Dr. Holland's recent publication. It is a curious investigation, and has by no means been exhausted by physiological or practical writers. The influence of the will on the voluntary muscles, and of passions of the mind on the various involuntary functions, has long been familiar to medical observers; but Dr. Holland asks:—

"Among the phenomena which attest the various influence of the mind on the bodily organs, has sufficient notice been taken of those peculiar effects which depend on the simple act of concentrating the attention separately upon them?

The effects of this "attention," or, as Dr. H. would prefer, this "direction of consciousness," to the heart and respiratory apparatus, are rather ambiguous, since the said organs are affected, more or less, by almost every emotion that passes through the mind, and the act of "attention" can, with difficulty be separated from these.

"Yet there is cause to believe the action of the heart quickened, or otherwise disturbed, by the mere direction of consciousness to it, without any emotion or anxiety. On occasions where its beats are audible, observation closely applied will give proof of this. And where there is liability to irregular pulsation, this is seemingly brought on or increased by the simple effort of attention, even though no obvious emotion be present."

We apprehend that this attention to the action of one's own heart is seldom exerted without some *cause* for emotion of mind, as apprehension of disease, &c. and consequently where there cannot be an exact deduction drawn. If a medical or any other man tries the pulse by way of experiment, he will very soon find (by making) what he is in search of. There are other organs and functions, however, where the effects of attention are less equivocal. Thus the act of deglutition is frequently rendered more difficult by our attention being fixed on that process. Where there is any impediment of speech, there is increase of difficulty in proportion to the attention of the individual to the organs of articulation. There is some truth, but we think also some fallacy, in the following observations.

"A similar direction of consciousness to the region of the stomach creates in this part a sense of weight, oppression, or other less definite uneasiness; and when the stomach is full, appears greatly to disturb the due digestion of the food. It is remarkable how instantly under such circumstances the effect comes on; a fact readily attested by experiment which every one may make for himself. This part of the body is well known to be singularly under the influence of all mental emotions; and it is difficult, as we have seen, so far to individualize or simplify the act of attention as to remove it wholly out of this class. The symptoms of the dyspeptic patient are doubtless much aggravated by the constant and earnest direction of the mind to the digestive organs, and the functions going on in them. Feelings of nausea may be produced, or greatly increased, in this way; and are often suddenly relieved by the attention being diverted to other objects. The proofs of this are frequent and familiar, especially in the curious phenomena of sea-sickness.—Further, the state and action of the bowels are much influenced by the same cause. Sensations occur of which we were not before conscious, and the actions of the lower bowels in particular are obviously excited and quickened. Such also is the case with the bladder; which

is solicited to act, when not otherwise disposed, by attention directed to it; the cessation of this removing at once all present sense of need."

The salivary glands are liable to be affected in their secretions by attention being intently directed to them; and "in the gums, the sensation created by attention given to them may rise almost to pain." This, we confess, staggers us a little: but we suppose it must be all right. It is clear that all these experiments must be self-executed:—they cannot be done by proxy. Dr. Holland must have experienced all these curious sensations in his own person: and it is evident that his acute—we had almost said *morbid sensibilities*, would render him an excellent subject for animal magnetism. Let the worthy doctor beware how he comes within the range of Dr. Elliotson's influence. The whole paper is, in fact an *auto-mesmeric* disquisition, or rather series of experiments, from beginning to end. We shall cull a few more examples. "The feelings produced in the tongue in like way are peculiar and well marked. Or a single limb, or portion even of a limb, may be taken for experiment: and a peculiar sense of weight and restlessness, approaching even to cramp, be produced by urging the attention expressly upon it." "Sensations of heat or cold, or other more vague feelings, on the surface of the body, may readily be created in a similar way."

"No one can direct his consciousness to the organs of seeing, hearing or of taste, without becoming aware of some changes in their state, from the mind thus by effort applied to them." "The attention concentrated, for so by effort of will it may be, on the head or sensorium, gives certain feelings of tension and uneasiness, caused possibly by some change in the circulation of the part; though it may be an effect, wholly inapproachable by proof, on the nervous system itself. Persistence in this effort, which is seldom indeed beyond a short time without confusion, produces results of much more complex nature, and scarcely to be defined by any common terms of language. It is in fact the case of the mind turned inwards upon the organs which most closely minister to its own operations."

Dr H. explains the various anomalous feelings of the hypochondriac on this principle—such as palpitation, flatulence, hurried breathing, irritable bladder, &c. &c.

"In chorea, hysteria, and diseases where disordered nervous actions occur, the same principle is more or less concerned; but without equally distinct intervention of consciousness and the will, as in most of the instances already cited. Yet in hysteria, the instances are frequent of attacks brought on by the mere expectation of them; or by imitation; or occasionally even by a sort of morbid solicitation of the organs to these singular actions."

Dr. H. has known asthma brought on by the sight of another person labouring under an attack of the same complaint. But what we have already quoted will have prepared the reader for the following declaration of AUTO-MESMERISM.

"I doubt not that certain of the results of animal magnetism are to be explained by reference to these facts. In some instances, where I have seen the magnetizer perform his operations on a limb, and then inquire as to the feelings created, in it, the sensations expressed by the patient were such as might readily be created by the solicitation of the question, especially under the nervous condition already induced. The same concentration of consciousness on the head or præcordia, when the mind is under this excitement, creates effects more remarkable and various; and in hysterical habits such as may appear to belong to a more mysterious cause. Other illustrations to the same effect will readily occur to those who have witnessed experiments thus directed, and will apply to this source for their solution."

It is true that no great compliment is here paid to animal magnetism, since the effects produced by that *science* (!) are all traced to the imagination—not the imagination of the magnetiser, but of the magnetized. The former, however, will avail themselves of Dr. Holland's admissions, and argue, not very un-

reasonably, that if a man can produce miracles in his own person, he may do the same in the person of another. But we very much suspect that our author has suffered himself to be deceived, or rather that he is of that peculiar nervous temperament in which *imagination* occasionally obscures the judgment. We have tried, over and over again to induce some of those sympathies by the force of consciousness directed to different parts, but, in no instance, with the slightest success. However, we may be made of stuff too sceptical for such fine operations, since none of the magnetisers could ever make the slightest impression on us by the most energetic manipulations. In making these observations we have no intention of classing the estimable author of this volume with the believers, or rather the make-believers, of animal magnetism. What Dr. Holland has stated, we have no doubt he has experienced in his own person, and therefore believed; but we reiterate our suspicions that the same results will rarely follow the same causes in other persons.

MR. DONOVAN'S IMPROVED MODE OF PREPARING THE TINCTURE OF DIGITALIS.*

Mr. Donovan has published an interesting Paper in the Dublin Journal on the pharmaceutical treatment of digitalis purpurea. He shews that the present is open to objection, and he proposes the following as a substitute.

"It consists in plucking the proper leaves off the living plant on the spot where it grows, instantly throwing them into the strongest alcohol, digesting for six weeks, pressing out the tincture, and filtering it. Here all the sources of deterioration are obviated, and we preserve the virtues of the recent plant unimpaired.

The ratio of the recent plant to the rectified spirit may be so contrived that the resulting tincture shall correspond with the ratio of the dried plant to the proof spirit as indicated in the Dublin Pharmacopœia.

I found from a mean of four trials that 100 grains of digitalis leaves, of a moderate size, gathered in dry weather, and immediately dried in a well-regulated fire-heat, lost seventy-nine grains of water. The same experiments made on small leaves proved a loss of eighty-three grains for every hundred. Thus the mean loss of leaves of a moderate and small size is eighty-one grains on every hundred; and the numerical strength of the dried leaves is to that of the recent as five one-quarter to one. Hence ten ounces and a-half, Troy, of the recent leaves, would be equivalent to two ounces dried; and there would remain eight ounces and a half by weight, that is 8.94 ounces, by measure, of water. If to this quantity of water contained in the recent plant we add 8.74 ounces of alcohol (0.814,) we shall have seventeen ounces and a half by measure of proof spirit, allowing for condensation, (instead of the sixteen ounces indicated in the Pharmacopœia for two ounces of dried foxglove,) which is one ounce and a half too much. But if ninety grains of powder of foxglove be added, the whole will be of the pharmacopœial strength, so far as ratio of the ingredients is concerned. But the quantity of liquid being inadequate to cover the leaves, the bottle containing the ingredients should be digested for a month, one day standing on its bottom and the next inverted on its top.

The resulting tincture will be of an olive-brown colour, because the red colouring matter, observed by Welding, will only be dissolved, and the chromulite will not. This must happen while we adhere to the ratio of the colleges. But we can obtain a brilliant green tincture by regulating the ratio so that the menstruum will be reduced to the strength of rectified spirit (0.840.

---

* Dublin Journ. May, 1839.

In order to do this, let ten ounces and a half, Troy, of leaves be pulled from the growing plant, and plunged into a bottle containing two pints and three-quarters (wine-gallon measure) of alcohol 0.815. The strength of the alcohol will be reduced by the water to the strength of rectified spirit (0.840), and after the proper digestion, a brilliant green tincture will result, as perfect as it is possible to procure it. The strength of this tincture, compared with that produced by the process of the Dublin Pharmacopœia, will be, so far as ratio is concerned, as one to three, and hence it might be given in three times the quantity for a dose. But as there is every reason to believe that its strength is incommensurate with this ratio, it might be prudent to begin with the same doses as have been always employed.

In this case the leaves will be covered by the alcohol : but a month's digestion in a warm place will be required, with frequent agitation."

REPORTS OF FIVE CASES OF WOUNDS OF ARTERIES, SUCCESSFULLY TREATED BY COMPRESSION. By T. S. KIRKBRIDE, M.D.*

We notice these cases because they are eminently suited to encourage hope, and, with hope, endeavours to preserve human life. Many do not feel themselves competent to cut down on the great arteries and to secure them—some might shrink from such an operation— but all may apply compression judiciously—and the cases before us instruct them to do so with reasonable expectations of advantage.

CASE 1. *Puncture of the Radial Artery, near the Wrist.*—The wound was inflicted with a knife. A graduated compress, extending one inch above and below the wound, was placed upon the artery and secured by a roller firmly applied and extending from the fingers to the elbow. The limb was then bound to a splint, reaching from the upper part of the fore-arm, to the distance of two inches beyond the points of the fingers. The hand was directed to be kept in an elevated position. He was perfectly cured.

CASE 2. *Complete Division of the Radial Artery at the Wrist.*—This occurred in the same individual, and was cured by the same means.

CASE 3. *Puncture of the Femoral Artery.*—A schoolmaster, residing in the northern section of the city, was sitting in front of his desk, along the inclined lid of which his open pen-knife, commenced rolling, and, to arrest it in its, fall, he drew his thighs together rather suddenly, and unfortunately just at the moment to catch it between them. The blade was forced deeply into the right thigh puncturing the femoral artery about midway between the knee and groin. A profuse gush of blood followed immediately, and the patient soon became faint. He was seen shortly after, by a highly respectable physician in the neighbourhood, who applied a graduated compress over the wound, and made pressure, by means of a tourniquet, with sufficient force to arrest the hemorrhage, without entirely stopping the circulation in the artery.

When Dr. J. R. BARTON saw the patient in consultation, he found him still labouring under all the usual symptoms of a great loss of blood—cold skin, feeble pulse, anxiety of countenance, and great prostration. As the bleeding had entirely ceased, he applied firmly and with great care, a bandage from the toes to the upper part of the thigh, elevated the limb, and caused perfect rest of

---

* Amer. Journ. Med. Sciences. Feb. 1839.

the part to be maintained. This treatment was faithfully preserved in, for upwards of three weeks. The wound healed, and the recovery was perfect. The patient never suffered in consequence of the accident, and there was no impediment to the circulation.

Case 4. *Bayonet Wound of the Brachial Artery.*—S——, a respectable merchant of Philadelphia, suffering from near-sightedness, when walking in the street near night, met a person trailing a musket, with the bayonet fixed. Mr. S. walked directly against the point of the bayonet, which penetrated his arm near the axilla, and wounded the brachial artery just below its commencement. He felt the blood flowing down his arm, and also along his body—he became faint, but revived sufficiently to reach his residence. When seen by Dr. Barton soon afterwards, he was excessively prostrated, his pulse almost imperceptible, his skin cold, and the blood still flowing from the wound. The vessel was not entirely severed. But for his great debility, Dr. B. would have immediately applied a ligature; but deemed it, under all the circumstances of the case, most prudent to defer an operation to a subsequent period, particularly as the hemorrhage was controlled without difficulty. The proper means for exciting reaction were resorted to, and a roller, applied with great care, from the point of the fingers upwards, secured a graduated compress immediately over the wound. An angular splint was bound to the arm by another roller, and the whole secured firmly to the body.

On removing the outer dressings, the greatest care was observed to prevent motion, and the injured part was not disturbed for three weeks from the occurrence of the accident. There was no suppuration, and the cure was perfect. So extensive was the effusion of blood into the cellular tissue, that the discoloration extended along the arm, nearly to the elbow—down that side of the body almost to the pelvis, and from the median line in front, to a corresponding point behind.

Case 5. *Complete Division of the Radial Artery.*—This was effected just above the wrist with a cutting instrument, and was perfectly cured by the means already described.

A series of interesting cases.

Mr. Waterton's Experiments with the Wourali Poison.

Mr. W. exhibited some interesting experiments lately at Nottingham, of which we shall take some brief notice. This poison is chiefly manufactured by the Indians of British Guiana. The materials whence it is composed are unknown, Mr. W. collected a quantity of the Wourali in Guiana, and is now trying its powers in this country. One or two of these experiments will be sufficient.

"At an early hour, a great number of persons, principally professional gentlemen of the town and county, assembled; and Mr. Waterton being present, and prepared, a brindled dog of good size was brought in for the purpose of testing the effects of the poison. An incision was made in the animal's left side, and an arrow-head, covered with the wourali, introduced, but, for a quarter of an hour, it manifested no symptoms of distress; at the end of that time, however, the action of the heart became irregular and tumultuous, and the pulse rose to 130—irregular and intermitting. At the expiration of 34 minutes, the dog showed indications of distress, by twitchings and feebleness of the legs.

At 36 minutes the poison was operating powerfully; the convulsions were constant; the pupils of the eye greatly dilated; and the animal, unable to stand fell down. The arrow-head was withdrawn.

At 40 minutes, the struggling increased, and the pulse was very irregular—the respiration getting more difficult.

At 42 minutes the bladder was acted upon.

At the end of 52 minutes, respiration had entirely ceased. There was a feeble action of the heart—the limbs supple.

Five minutes more were allowed to elapse, and the body was opened. The heart was full of fluid blood, and, on being pricked with the point of a scalpel, gave not the slightest indication of irritability. This at once proved the dreadfully destructive nature of the poison.

A female ass, 8 years old, was next tried. The animal was in rather poor condition, but, previous to operating, the action of the heart was regular—the pulse at 62.

At 9h. 6m. (that is, 6 minutes past 9), an incision was made in the neck of the ass, near the right shoulder, and an arrow-head, strongly poisoned, introduced into the wound.

At 9h. 12m. the pulse, was at 60, and continued uninterruptedly the same for five or six minutes longer, when it began to increase.

At 9h. 20m. the pulse was irregular, and had risen to 72, the respirations at 14 in a minute. At this time, the pupils, of the eye were becoming dilated.

At 9h. 32m. the pulse was still at 72, the animal manifesting symptoms of uneasiness

At 9h. 36m. the pulse had risen to 84, and the creature, repeatedly lifted its fore legs, which trembled, and the next minute it fell down—being exactly 31 minutes from the time of introducing the poison. There was a slight struggling, but the muscular power soon ceased. The pulsation was imperceptible, except a slight fluttering at the heart, and animation appeared to be extinct.

The animal was then raised upon a table. An opening was immediately made in the trachea, and at 9h. 41m. artificial respiration was commenced.

The apparatus for producing respiration, is a double pair of bellows, keeping up a constant current of air. To this a leathern pipe was made to fix over the nozzle,—the other end of this pipe is attached to a tube that is introduced, by a bend, into the trachea, but easily removed in a moment and a circular pad upon the tube, near, the bend, is drawn pretty tight over the wound, so as to prevent an escape of air. Five operators are required,—one to keep the bellows going —another to shift the part of the pipe on the tube—two to the body of the animal—and a fifth to the nostrils. The wind is forced by the bellows through the leather pipe and tin tube into the lungs—the moveable part of the leather pipe is then withdrawn from the tin tube, and the two individuals, appointed for the purpose, press upon the animal, so as to force the wind out again, through the tube, the nostrils being stopped. The repetition of this process must be equal in time to the usual respirations of human beings in a state of health, or from sixteen to eighteen in a minute, so that some idea may be formed of the labour required.

At 9h. 44m. the pulsations became once more distinct, as high as 72, and continued varying for seven hours, from 56 to sometimes 100, but most frequently at between 70 and 80. No other symptoms of life were at all displayed. Natural respiration was wholly suspended during the entire time, but about 4 o'clock there was evidently a slight muscular motion. Enemas of warm water and turpentine had been administered, and the bowels were freely acted upon. Dr. Davidson had also inserted on the right shoulder about 4 grains of strychnine: and turpentine had been used, as well as ammonia applied to the nostrils, but the room was so crowded by visitors, that it was next to impossible accurately to take notes.

About this time (4 o'clock, the creature displayed symptoms, by the agitation of the nostrils, of returning natural respiration.

At 4h. 38m. its natural respiration was free, and the artificial respiration was

discontinued. Soon after, the animal was laid on some straw, before a large fire, where it continued in a very doubtful condition through the night. Every attention was paid to it.

At 8h (in the evening) it drank some water, and horns of gruel were occasionally given. It sometimes struggled a little with its legs, as if desirous of rising, but could not well raise its head. The pulse was feeble, and varying from 86 to 104.

Towards the morning, it breathed with great labour and difficulty, and apprehensions were entertained that it must sink; but between five and six o'clock, the tube was removed from the trachea, and some mucus and blood was voided at the incision. Some lint was applied to the wound, and at 7 o'clock it was sewed up.

At eight o'clock, it was raised on its belly, and seemed pleased with the change of position A warm bran mash was offered in a bucket, of which it ate with much ease. Its breathing become more free, and about 9 o'clock it was raised on its legs, but they were unable to sustain it, particularly the near fore-leg, which was contracted, and paralysed. It was taken out into the yard for a couple of hours, but the cold was too intense, and it was again brought before the fire.

At noon, its pulsation was at 80, and it ate freely of mash and hay, and repeated horns of gruel were given to it. The creature continued improving through the day, but retarded the progress of recovery by ineffectual struggles to rise."

The animal died, however, a few days afterwards. The following extract is from M. W.'s "Wanderings," an amusing publication.

" It (the wourali) is supposed to affect the nervous system, and thus destroy the vital functions; it is also said to be perfectly harmless, provided it does not touch the blood. However, this is certain, when a sufficient quantity of it enters the blood, death is the inevitable consequence; but there is no alteration in the colour of the blood, and both the blood and the flesh may be eaten with safety.

The wourali poison destroys life's action so gently, that the victim appears to be in no pain whatever; and probably, were the truth known, it feels none, saving the momentary smart at the time the arrow enters.

A day or two before the Macoushi Indian prepares his poison, he goes into the forest in quest of the ingredients. A vine grows in these wilds, which is called wourali. It is from this that the poison takes its name, and it is the principal ingredient. When he has procured enough of this, he digs up a root of a very bitter taste, ties them together, and then looks about for two kinds of bulbous, plants, which contain a green and glutinous juice. He fills a little quake, which he carries on his back, with the stalks of these; and lastly, ranges up and down till he finds two species of ants. One of them, is very large and black, and so venomous, that its sting produces a fever: it is most commonly to be met with on the ground. The other is a little red ant, which stings like a nettle, and generally has its nest under the leaf of a shrub. After obtaining these, he has no more need to range the forest.

A quantity of the strongest Indian pepper is used; but this he has already planted round his hut. The pounded fangs of the Labarri snake, and those of the Counacouchi, are likewise added. These he commonly has in store; for when he kills a snake, he generally extracts the fangs, and keeps them by him

Having thus found the necessary ingredients, he scrapes the wourali vine and bitter root into thin shavings, and puts them into a kind of colander made of leaves: this he holds over an earthen pot, and pours water on the shavings; the liquor which comes through has the appearance of coffee. When a sufficient quantity has been procured, the shavings are thrown aside. He then bruises the bulbous stalks, and squeezes a proportionate quantity of their juice through

his hands into a pot. Lastly, the snakes' fangs, ants, and pepper are bruised and thrown into it. It is then placed on a slow fire, and as it boils, more of the juice of the wourali is added, according as it may be found necessary, and the scum, is taken off with a leaf; it remains on the fire till reduced to a thick syrup of a deep brown colour. As soon as it has arrived at this state, a few arrows are poisoned with it, to try its strength. If it answer the expectations, it is poured out into a calabash, or little pot, of Indian manufacture, which is carefully covered with a couple of leaves, and over them a piece of deer's skin, tied round with a cord. They keep it in the most dry part of the hut; and from time to time suspend it over the fire, to counteract the effects of dampness."

From a passage in the above extract, the wourali may, in time, rival Prussic acid as an Euthanasial mode of shuffling off this mortal coil.

ANNUAL REPORT OF THE COW-POX INSTITUTION OF DUBLIN.

However, and from whatever causes, vaccination may fail in England, its success in Dublin would seem to be cheering. We extract the following from the Annual Report of the Cow pox Institution, published in our active Irish contemporary, the Dublin Medical Press.

It was asserted at an early period, that cow-pock could protect the constitution from small-pox for about three years; numerous experiments, however, tried in different places, satisfactorily refuted the allegation. Afterwards the period of security was extended to five or six years. To ascertain how far this opinion was correct, the directors, in 1810, submitted above twenty children who had been vaccinated five and six years before, to *variolous* inoculation, but without producing small-pox; and about the same time, nineteen children, who had been vaccinated eight and nine years before were inoculated with small-pox at the Foundling Hospital, but with no other effect than slight local inflammation. Many similar experiments were instituted at that time by private practitioners, and with the like results. More recently still, the efficacy of cow-pock, as a permanent preventive of small-pox, has been called in question, but the period of security extended to ten and fifteen years, and re-vaccination at certain stated periods recommended; but the experience of this Institution does not prove the necessity of such alleged precautionary measures. Many thousands of the patients who were vaccinated from thirty to thirty-five years ago, at this Institution, at Mr. Creighton's Dispensary for Vaccine Inoculation, at the various hospitals and dispensaries, and by private practitioners, being still in Dublin and its neighbourhood, it is reasonable to suppose that if cow-pock did not for the most part afford permanent security, the records of the Institution and practitioners above alluded to, would exhibit numerous cases of small-pox occuring in those who had been vaccinated; whereas the well authenticated cases of failure of vaccination are so very few as scarcely to affect the general proposition, that *perfect vaccination is permanent in its influence*.

Some time ago the small pox appeared in a small court in the Liberty, where there resided about forty children, of whom nine had been vaccinated at the institution. Of the unvaccinated children twenty-one took the small-pox, and eleven died; whilst the vaccinated children, though living in the same apartments with the infected, all escaped.

The directors add a very excellent recommendation:—

The directors cannot conclude this report without expressing their opinion in favour of a regulation, recommended by the Institution more than thirty years ago, rendering it imperative on candidates for diplomas in medicine and surgery, to produce certificates of attendance at some cow-pock institution; such a

regulation would be of essential service to the public, and could not entail much expense or trouble on medical students. Soon after the cow-pock institution was opened, the directors made an order, that medical and surgical students, junior practitioners, and military surgeons on Dublin duty, should be instructed in vaccination, at the institution; but there being no compulsory, regulation, few availed themselves of the proffered advantage.

Experiments of Dr. Allison on Venous Pulsation.*

Dr. Allison has communicated to our able contemporary of Philadelphia, a Series of Experiments proving the existence of a Venous Pulse, independent of the heart and nervous system. We will not say that he has fully established his views, nor indeed will we pronounce an opinion on experiments which we cannot conveniently transfer to our pages. We shall therefore content ourselves with stating the conclusions at which Dr. Allison has arrived, and we must refer such as would consult the data, to the pages of our contemporary.

Dr. Allison believes that, in reference to the cavæ and pulmonary veins, his experiments prove the following points.

1. That the venæ cavæ near the heart and pulmonary veins pulsate in the four classes of the vertebrata.

2. That in dying animals they pulsate long after the auricle and ventricle have ceased to beat.†

3. That they will also beat even in quadrupeds, for hours, after they have been separated from the heart and from the body.

4. That the distention by blood is not absolutely necessary to their contractile power.

5. That we can stimulate them to contract either when in or out of the body by mechanical and galvanic means, especially by the latter after all motion has ceased for some time.

6. That after frequently stimulating a vein we impair the contractile power, which in order to re-excite, it becomes necessary for us to desist our attempts for a time; thus resembling the action of acids on galvanic plates.

7. That tying a vein and otherwise irritating it will often destroy for a time its pulsations, while they will continue unimpaired in the other vessels.

8. That a vein may contract in a particular part only.

9. That we sometimes see an undulatory movement from one extremity of the veins towards the other.

10. That sometimes by irritating a vein several others will contract simultaneously, at other times only that vein which has been stimulated.

11. That there is a great diversity of the relative order in which the veins pulsate, for instance:

12. That they may vary in frequency: those of the one side exceeding those of the other.

13. That they may have twice the frequency of the auricular movements.

14. That generally the venæ cavæ are synchronous, being followed by the auricle, and then by the ventricles, though they are not invariably so.

---

* American Journ. of Med. Sciences, Feb. 1839.

† Spallanzani and others prove, in numerous instances, that the blood circulates longer and faster in the veins than in the arteries after the heart has been excited. Exp. lxxx. lxxxi. lxxxiv. lxxxvii. lxxv. lxxvi. lxvii. civ. May not this be ascribed to the fact stated in the text?

15. That the pulsations of the several parts may follow the one immediately after the other, or there may be intervals of some seconds.

16. That the vessels may pulsate a number of times before the heart makes a single motion and *vice versa.**

17. That the pulmonary veins probably retain their excitability longer than the venæ cavæ. though they do not all cease pulsating at the same time.

18. And finally, that it is very doubtful whether the veins possess any sensible contraction like that existing in the venæ cavæ and pulmonary veins near the heart.

MR. SQUIRE'S BI-MECONATE OF MORPHIA.

This gentleman has introduced a new preparation of morphia, which has been tried by some members of the profession, and deserves to be tried by more.

Reflecting on opium, Mr. Squire thought, that the combination of the active principle in the substance, as prepared by the hand of Nature, would prove most beneficial as a therapeutic agent, if it could be separated from the other components of the vegetable body.

He accordingly instituted a series of experiments, with a view to procure the bi-meconate of morphia as free from the other ingredients of opium as possible, and obtained the preparation, whose title is above. From a series of testimonials in its favour, we shall quote a fragment of one, presented to Mr. Squire by Dr. A T. Thompson. One of his patients suffered from a neuralgic pain of the left side of the face, extending from the temple to the molar teeth of the upper jaw. Everything, we may almost say, had been tried. "The strength of the patient was nearly worn out from want of sleep; and, under these circumstances, your solution was prescribed. Thirty minims were prescribed in a fluid ounce and a half of camphor mixture at bed-time. Two hours' sound sleep were procured, and, on awaking, the patient felt the most satisfactory abatement of her sufferings. She was ordered to continue it in doses of eight minims, in combination with fifteen minims of the arsenical solution, every third hour during the day, and to repeat the full dose of thirty minims at bed-time; whilst, at the same time, the bowels were kept moderately lax. The most gratifying results followed this plan of proceeding; the pain gradually yielded; in less than a week she had comfortable nights; after which the dose of the solution was rapidly diminished; its use discontinued during the day; and in the third week I had the satisfaction of leaving her perfectly free from the complaint."

There are ample grounds for recommending the medicine to the notice, and the experiments of the profession.

EXTERNAL USE OF COLCHICUM.

Mr. Laycock has contributed two papers to the Medical Gazette on this subject He employs a tincture of the root of colchicum as a liniment. We quote a few of the virtues of this innocent remedy.

It alleviates rheumatic pains, and pains in those of a gouty constitution, in nine cases out of ten. The exceptions are very chronic cases in old people.

---

* *Quære.* Is the natural order of the pulsations ever inverted in the perfect animal? It is certain that were the right auricle and venæ cavæ to contract simultaneously, a much more general pulse would result than what takes place in the inverse order; whether this actually gives rise to the violent pulsation of the jugular veins, &c. in the human system, is hard to determine.

When relief is experienced, it is perceived in from two to thirty minutes after applying the remedy. Some patients remark that a sensation of warmth, or of tingling or formication follows the application. Occasionally, small pimples have appeared. Some appear to have been not merely relieved, but cured by it The patient, in particular, who had had severe rheumatic headache for a length of time, and which had resisted the usual remedies, was well after using the tincture for a few days.

Venereal pains.—The proportion of cases of this class relieved by it is about three in five.

Anomalous pains in various parts of the body, as of the side in young females, of the feet, &c., are generally relieved by it.

Distinctly nervous pains and headache have been sometimes relieved sometimes not: but when relief followed, it was no more, perhaps, than would have resulted from an equal quantity of proof spirit.

Pains, the sequelæ of injuries, are aggravated so soon as the tincture is applied, but eventually relieved.

We think we may draw breath. The hypothesis applied to the solution of the relief afforded by the tincture to nervous pains, may, we suspect, be extended to the rest—to wit, that the relief is such as might result from the application of proof spirit.

STRYCHNIA IN RETENTION OF URINE.

Dr. Cory has communicated to our contemporary, the Medical Gazette,* a case of retention of urine successfully treated by strychnia.

Case. The patient, aged 30, had been delivered of her first child.

"I was requested to revisit her on the expiration of about twelve hours, as she was in great pain, and had passed no urine. The catheter was immediately introduced, and the evacuation of the bladder afforded considerable relief. On the third day after delivery, some symptoms of peritonitis were evident which however, were subdued by a strictly antiphlogistic mode of treatment. It will, perhaps, be sufficient to state, that it was found necessary to perform catheterism twice a day for nearly three weeks; and during that period there was not the slightest ability to discharge the urine, although repeated attempts were made to effect so desirable an object. As so long a time had elapsed, and as there did not appear to be any disposition on the part of the bladder to recover its original tone, I was induced to make trial of the strychnia, from the recorded accounts of its action in paralytic affections. I accordingly prescribed one-sixteenth of a grain of that substance three times a day. I was, I must confess, somewhat surprised to find that my patient, after taking the second dose, was enabled to pass her urine *suâ sponte*, and with ease and comfort to herself. She continued the strychnia, in the above dose, until about a grain of that medicine had been administered. There has been no return of the retention, and she is now completely convalescent."

INJECTION OF TINCTURE OF IODINE INTO THE TUNICA VAGINALIS FOR HYDROCELE.

Our readers are aware that the injection of a solution of iodine for the radical cure of hydrocele has been lauded much of late. Our readers, too, must be

---

* March 16, 1839.

aware, how many other means have been lauded equally in the same disease—with what absolute truth the necessity for fresh laudations of fresh remedies testifies.

Dr. Oppenheim has added his approval to the solution of iodine. He has tried it in fifteen cases, with such great success, as to give even himself alarm.

"I cannot conceal from myself, that the list of cases which I have given, differing so essentially from the results obtained by most distinguished surgeons might awaken distrust and doubt on the accuracy of my observations, or even, of the truth of their author. Supposing such to be the case, I would say, that I have chosen my cases most particularly; and wherever I had reason to suspect any complication, or where there was any reason to render this operation unfit, that I never undertook it."*

Dr. Oppenheim is neither the first who has met with better fortune than his neighbours, nor will he, probably, be the last, The employer of a new remedy uses, perhaps, extraordinary diligence in preparing and in selecting his cases—works with great zeal, and consequently inspires great faith—possibly meets occasionally with some luck. Whether this explains the circumstance or not, certain it is, that new remedies are most fortunate, for the most part, in new hands, and in such hands their good results exceed the average benefits they will effect

It is only fair to Dr. Oppenhiem to add the following observations of his own.

"It is easy to be explained, how different observers have arrived at very contradictory results in the application of this remedy, some considering it useless on account of the trifling reaction caused by it; whilst others, on the contrary, thought it acted too violently, so as to cause suppuration and gangrene of the scrotum. The tincture of iodine is very differently prepared in different pharmacopœias; in some there is more, and in other less of the iodine dissolved, (the Hamburgh as well as the Prussian says, forty-eight grains of iodine to one ounce of rectified spirit; the Parisian only forty grains). By the less degree of diffusibility of the iodine in water, the iodine contained in the tincture is very soon precipitated when mixed with water, and it is the more the longer it may remain, so that at last there is nothing but a mixture of water and alcohol. A preparation which unites in such different proportions, cannot be expected to produce similar effects: I find it then most expedient to mix the ingredients at the time of using them, and to make the degree of pain suffered by the patient, the criterion for leaving the injection a longer or shorter time in the tunica vaginalis. The mixture may also be applied warm, for then the iodine will remain longer united with the spirit. By the employment of the caoutchouc flask in place of the simple syringe, there is a double advantage to be derived, the permitting of the fluid to pass many times back and forwards, without any danger of extravasation into the cellular tissue, and by shutting out the light to prevent the separation of the iodine."

Shall we hint that we are men of little faith, and that we anticipate for the tincture of iodine in the treatment of hydrocele, the same fate that has overtaken its predecessors—high eulogies on its introduction—equivocal success on its application.

---

* Dublin Journal, November, 1839.

SPIRIT OF THE FOREIGN PERIODICALS, &c.

On Re-vaccination.

M. Dezeimeris has published an excellent paper in the *Experience*, in continuation of his former one—which we alluded to with praise in our article on Re-vaccination in the Foreign Periscope of our last Number. We shall again avail ourselves of his researches on the same subject, as it is one which, at the present time especially, requires to be well understood by all medical men.

M. *Dezeimeris* endeavours to establish the following positions.

1. That the cases of small-pox occurring in vaccinated persons have of late years become progressively more and more numerous during each successive epidemic.

2. That the severity of the small-pox in vaccinated persons has gradually increased with the number of the persons so affected.

3. That vaccinated persons become more and more liable to be affected with small-pox as they advance in life; and that the severity of the disease in them is, on the whole, proportionate to the interval of time that has elapsed since the operation was performed.

4. That this law fixes the degrees of susceptibility of the system to the vaccine virus as well as to the variolous contagion; and that *it* thus regulates the chances of successful re-vaccination and of the liability to small-pox.

5. That re-vaccination is as effectual a preservative to those in whom the protecting influence of the first vaccination may have passed away, as this first operation proved to be during several years.

The *first* of these propositions was very fully illustrated in the last Number of this Review (Rev.), by reference to the statistical data from various countries of Europe. It is perhaps scarcely necessary to adduce any further examples of its truth; but as we did not allude to any reports from Italy, we shall now very briefly supply that omission.

Dr. *Verson*, physician of the circle of Parenzo in Istria, informs us that, from 1802 to 1819, the cases of small-pox after vaccination were so rare that little credit was attached to them; but that from the latter year to 1825 the increase of such cases was so considerable and progressive, that no one could remain sceptical as to the insufficiency of the protection. In 1832-33, the number of cases of variolous and varioloid affections observed by Dr. V. was 300, the greater number of which occurred in vaccinated persons. All the severe cases occurred in persons from the age of 18 to that of 35 years. Dr. *Verson* is a strenuous advocate of re-vaccination.

Dr. *Gambarini*, physician of the Milan Hospital, mentions that the number of cases of small-pox after vaccination was considerably greater in the epidemic of 1830 than in that of 1825, and that, previously to the latter year, such cases had been of very rare occurrence.

These facts, coupled with the numerous others reported from different parts of Italy, and with those which have been observed in other countries, leave no doubt as to the fact that the frequency and severity of variolous epidemics have much increased in almost every part of Europe, within the last twelve years.

The *second* position—viz. that the severity of the variolous and varioloid epidemics has certainly been increasing of late years—is fully borne out by the various histories which have been laid before the public. During the first ten or even twenty years after the general introduction of vaccination, the cases of small-pox occurring in persons who had been vaccinated were not only very rare,

but almost invariably very mild and much modified too in their characters. The primary fever subsided when the eruption appeared; most of the papulæ dried off without suppurating, and the others maturated in the course of a few days: a fatal case was seldom or never heard of in these days.

The disease however in subsequent epidemics has been gradually approaching more and more nearly to the *natural* disease, such as occurs in persons who have not been either vaccinated or inoculated; and in some recent epidemics, the cases which have occurred after vaccination have been in no respect different from those of the *natural* disease. According to Dr. *Grancini*, the mortality in such cases has of late years been about 7½ per cent.

The *third* position may be equally satisfactorily established. If we consult Dr. *Heim* on the cases of secondary variola observed at Wurtemburg during the last six years, we cannot fail to remark with what efficacy vaccination protects the system for ten or twelve years, after it has been properly performed; and that it is only after that period that its preservative effects manifestly become less decided—the degree or extent of increase in the protecting power seeming to be strictly proportionate to the length of the interval that has elapsed since the virus had been inserted.

Whereas 216 cases of variola were observed by him in *unvaccinated* children under ten years of age, and only 51 *vaccinated* children within the same period of life, there were 71 cases of disease in unvaccinated persons of from 11 to 20 years of age, and not fewer than 507 cases in vaccinated persons of from 13 to 24 years of age.*

Dr. *Bidder*, medical inspector of *Courland*, informs us that, from January 1826 to the end of 1831, out of 618 cases of variolous and varioloid diseases—the greater number in vaccinated persons—observed by him, and of which 94 proved fatal, every one occurred at an interval of from 10 to 20 years from the date of the preceding vaccination.

Dr. *Nadherney*, first physician of *Bohemia*, states that, during the year 1828, variolous disease was very extensively diffused in that country. All the cases, which were observed in vaccinated persons, were found upon enquiry to have occurred at an interval of from 12 to 24 years after the date of the vaccination.

Dr. *Pommer*, in his report on the sanitary state of the Canton of *Zurich*, has recorded numerous facts in confirmation of the same truth. Persons, who had been vaccinated from 8 to 15 years before the epidemic, were affected very mildly; but, after the latter age, the disease was almost always much more severe, and approximated more in its characters to the *natural variola*.

A very severe variolous epidemic prevailed at *Vienna*, in 1832. Dr. *Guntner*, physician of the Orphan Hospital in that city, mentions as a proof of the protecting power of vaccination, that in the establishment under his care, which contains upwards of 1300 children—the greater number of whom were under 10 years of age—eleven only were affected by the contagion. The master and mistress of the hospital suffered severely.

It is almost unnecessary to multiply examples of the position—that the severity of small-pox occurring after vaccination is almost invariably proportionate to the length of the interval that may have elapsed since the date of the operation.

We might easily adduce other proofs of its truth from the writings of Dr. *Festler of Padua*, of Dr. *Gambarini of Milan*, *&c.*; but as we cannot afford room for such details, we shall now proceed to the proofs of the *fourth*

---

* To explain this seemingly disproportionate excess of the cases in vaccinated over those in unvaccinated patients, we must remember that vaccination is made obligatory by the government of Wurtemburg, and hence that few persons evade it.

position—viz. that the susceptibility of the system to be affected either by the variolous or by the vaccine virus after vaccination is inconsiderable for twelve or fifteen years, but becomes more and more decided after the lapse of that period.

Dr. *Reuss* of *Stuttgard* mentions that out of 27 re-vaccinations, of which 25 were performed on persons under 14 years of age, three only took effect; whereas 7 out of 12 re-vaccinations on persons above that age succeeded.

Dr. *Lucas* of *Erkelenz* performed, in 1833, 289 re-vaccinations on persons from 2 to 28 years of age. The operation was followed by only an insignificant irritation in children under 5 years of age; by imperfectly formed vesicles in those under ten years; and by more or less complete and normal vaccine vesicles in those above that period of life. Almost uniformly he found that the success of the operation was proportionate to the length of interval that had elapsed since the date of the former one.

He tried also the effects of vaccinating some persons who had passed through the natural small-pox. The pustules or vesicles which followed were always observed to be more perfect in those persons, who exhibited but few pits or scars of the small pox. In two persons, both of whom were upwards of forty years of age, and who had had small-pox in their childhood, vaccination was followed by the most perfect cow-pock vesicles.

In 1830, Dr. *Pini* of *Morbegno*, re vaccinated thirty-five persons of various ages, from 4 to 20 years, and in all of whom there were good cicatrices of a former vaccination on their arms. In the children from 4 to 10 years of age, the punctures were followed only by the most trifling local irritation, which quite passed away in thirty-six hours. In the others, vesicles, which were observed to be more or less complete and normal just in proportion to the more advanced ages of the patients, were formed at the seat of the punctures. In some, these vesicles exhibited all the appearances of genuine primary vaccine vesicles. Not one of these re-vaccinated young people contracted the variolous epidemic, which was very prevalent in the district at the time.

Dr. *Baumgartner* of *Baden*, in a recent epidemic of variola there, which attacked many persons who had been vaccinated and proved fatal in a good many instances, strongly recommended that all persons above 12 years of age should be immediately re-vaccinated. Not a single case of small-pox was afterwards observed in any one who had been so treated.

At *Riegel*, of 910 persons, who were re-vaccinated, 161 exhibited genuine cow-pock vesicles after the operation.

But it is needless to cite more proofs: we shall only mention the names of the veteran Dr. *Wagner*, of Schlieben, Dr. *Pommer*, of Zurich, Dr. *Balardini*, of Valteline, Dr. *Festler* of Padua, &c., all of whom have of late years practised re-vaccination, and continue to recommend the practice as the most effectual means of arresting the spread of variolous contagion.—*L'Experience.*

ELOGE ON BROUSSAIS, BY M. BOUILLAUD.

The oration, which M. *Bouillaud* pronounced over the tomb of his friend and preceptor in the name of the Faculty of Medicine, is in the usual high-pitched style of indiscriminate panegyric. "It would require the pen of a *Bousset*," we are told, "worthily to pourtray the character of such a man as *Broussais*."

He was born in 1772, of worthy but humble parents: his father was a village apothecary.

Educated under *Pinel* and *Bichat*, two of the greatest luminaries of the French school, he early displayed those talents of independent enquiry, which afterwards laid the foundation of his character as the greatest medical reformer of the nineteenth century.

It is curious that in his first publication (in 1803) *Broussais* advocated the doctrine of the *essentiality* of fevers with great zeal, and carried the doctrine even beyond what M. *Pinel* himself attempted to do.

"Is it not," says M. *Bouillaud*, "a circumstance well fitted to strike the mind of the medical philosopher, that *he*, who was destined to sap to the very foundations, and finally to overthrow the long revered doctrine of the *essentiality* of fever, should commence his public career by the open profession of an *ultra-essential belief?*"

Broussais entered the military service soon after he had passed the usual ordeal of examination, and accompanied the French army into "*cette Italie qui avait été aussi le theatre de ces immortelles campagnes du jeune General Bonaparte.*"

At this part of his oration, M. *Bouillaud*, kindling with patriotic fire, breaks out into the following *sublime* (!) apostrophe.

"And if the hero of these immortal campaigns was destined to become first Consul, Emperor of the French, and King of that Italy which he had so miraculously conquered, so likewise was the hero of the medical campaign destined to become the chief of an Empire of another kind, and to wield an intellectual sway over an empire even still more extensive. I might carry the parallel still further, and tell you that it was at *Udina*, not far from *Campo Formio*, where *Bonaparte* signed his memorable treaty, that *Broussais* collected the materials of one of the most glorious monuments ever dedicated to medical science."

The work here alluded to is the *Histoire des Phlegmasies, ou Inflammations Chroniques*, published in 1808.

"Among the important *truths* unfolded in this great work is the one, that almost all chronic diseases consist truly and essentially in chronic inflammation of some part or other of the body. Thus pulmonary consumption may always be associated with a chronic phlegmasia of the respiratory organs; and numerous gastric disorders, which used to be regarded as *saburral*, and of an asthenic character, are found to depend upon a slow inflammation of the coats of the stomach."

(We need not say that these doctrines of M *Broussais*, so indiscriminately eulogised by M. *Bouillaud*, are only partially, and to a limited extent, true. The experienced physician knows full well that by far the greater number of stomach disorders are certainly not of an inflammatory nature; and he also knows that the antiphlogistic treatment of phthisis is certainly not that which can boast of much success. Much more good has, we believe, been effected by the beef-steak and porter practice than by confinement to an absolute *diete*, and by depletions.—*Rev.*)

In 1814, Broussais returned to Paris, and was soon appointed physician to the Val-de-Grace Hospital—which posterity will regard, says M. Bouillaud, with the same veneration as was paid by antiquity to the oracle of Cos. (!)

"Two years subsequently, he fulminated, *si j'ose ainsi parler*, a manifesto of war—*l'Examen de la Doctrine Medicale generalement adopteé*—such as the medical world had not seen for many ages. Roused by this thunderbolt, every one lent an attentive ear to the message; and soon it was discovered that it was the herald of a mighty revolution."

We are then told how often little things bring on great events. Every one knows the story of Sir Isaac Newton and the fall of the apple; but perhaps not many of our readers are aware that the accidental *falling* of an obscure work of M. *Hernandez* into the hands of *Broussais*, gave birth to that mighty reform, which has acquired the name of *Systeme de l'Irritation*, or *Doctrine Physiologique*.

That the works of M. *Broussais* and of his followers have done a certain amount of good, by directing the attention of medical men to a more searching examination of the various organs of the body in numerous diseases, more

especially in the class of fevers, cannot be disputed by any one; it is in this particular that the chief merit of his labours lies. But we are almost inclined to believe, at the same time, that as much, or even a greater amount of, mischief has arisen from the indiscriminate and extravagant adoption of the so-called physiological doctrine, carried as it has been, and still is, by so many *à l'outrance*

One of the *grand discoveries* of Broussais, that of the non-essentiality of fevers, has of late years been totally discountenanced by the best British physicians, and has been only partially admitted by some of the ablest members of the French school, such men as *Andral*, *Chomel*, and *Double*; and although M. *Bouillaud* may be pleased in his enthusiasm to regard the substitution of general and local bleedings and of emollients in the place of purgative, emetic, and cordial medicines, as *une grande revolution therapeutique*, and as a boon to humanity which grateful posterity will eternally laud, many of his own compatriots can tell him that every year medical men are returning more and more to the old system of treating fevers, such as was followed by Sydenham, Baglivi and Cullen.

In 1818 (we believe) *Broussais* established a new medical journal, *Annales de la Medicine Physiologique* with the view of more extensively propagating his favourite doctrines: it was continued with much spirit, and with very considerable success, for ten years.

In 1823, *quand il brillait de toute sa glorie et regnait en quelque sorte dans toute sa majesté*, Broussais, along with several other professors of the faculty, was deprived of his chair by the government of the day. He was not restored until the last revolution in 1830, when he was appointed to the chair of pathology and therapeutics. About this time too, he published his *Essai sur l' Irritation et la Folie*. At the period of his death he was engaged in preparing a second edition of this work, in which he proposed to embody the results of his phrenological observations, which had for some years occupied the greater part of his attention.

This, like all other productions of his pen, bore the stamp of his bold and masculine genius. The tone and temper of Broussais's character remind us not a little, says his panegyrist, of such men as *Mirabeau* in France and of *O'Connell* in England. The same daring and dauntless independence of spirit, the same intrepidity of moral, and we may add of physicial, courage, and the same talent and taste for revolutionary changes, are alike conspicuous in these three great reformers. The expression of M. *Broussais'* features was handsome, but severe and dignified; when lighted up with passion, it became *vraiment magnifique*. He was in his sixty-sixth year at the period of his death.

HISTORY OF THE LAST ILLNESS OF M. BROUSSAIS

It would seem that, after the death of the illustrious medical reformer, various reports were in circulation that his disease had been mismanaged, and that his health and constitution had suffered more from the medical means that had been employed, than from the severity of the malady itself. M. *Amussat*, his medical attendant, has therefore felt himself called upon to exculpate himself, by laying before the medical public a detailed report of his distinguished patient's case, and of the practice which he had pursued in treating it. The case is an instructive one, and the abridged report, which we propose to lay before our readers, may probably interest them on more than one account.

For many years M. *Broussais* had been subject occasionally to attacks of severe pain, situated apparently in the pylorio extremity of the stomach, and

of diarrhœa recurring at intervals. His appetite and digestion, however, were almost uniformly good.

During the last two years or so of his life, he had experienced a gradually-increasing difficulty in the evacuation of the bowels; and, at the same time, pains at the neck of the bladder, and some degree of dysentery were frequently experienced. In April, 1838, he first consulted his friend, M. *Amussat*, who ascertained by examination, that the anterior wall of the lower part of the rectum was hard, thickened, and knobby, and who (he tells us himself) augured unfavourably of the case from his very first visit, although he assured his friend that his disease was only hæmorrhoids, and would be easily cured by means of ligature.

In consequence, however, of M. *Broussais's* objections to any operation, the use only of bougies, for the purpose of dilating the gut, was resorted to. Considerable relief was obtained from this practice. A few weeks subsequently, M. *Amussat*, believing that more active measures were necessary, requested that MM. *Breschet* and *Sanson* be called in to consult with him upon the case. It was agreed that the same treatment should be continued as hitherto, and that, if the vegetations on the gut increased much in size, recourse should be had to the use of the ligature and of caustic.

In July, the largest one of the tumors or vegetations, which was constantly protruded with a good deal of distress at each evacuation, was tied: it quickly came away, and the patient was considerably relieved in consequence. A few days after this operation, another tumour, in every respect like the preceding one, began to cause the same uneasiness; and M. *Amussat* therefore resolved to get rid of it also by ligature.

It would seem, however, that the state of the parts was at this time even more unfavourable than it had been: for it is mentioned in the report;—"the disease had attacked the entire circumference of the bowel, and had reached down to the sphincter: the mucous membrane was observed to be of a shining yellow colour, and to be much altered in its texture." A ligature was applied to the other tumor; but, as it could not be put high enough up so as to surround its base, M. *Amussat* attempted to destroy the pedicle by squeezing it between the blades of a pair of forceps.

This operation did not cause much uneasiness; but the examination of the gut afterwards was acutely painful. The bougies and tents were again had recourse to.

On the 13th of August, a small vegetation, which was constricted by the sphincter, was excised.

The report continues:—

"The inferior orifice of the rectum had been cleared from all obstructions, and was now readily dilatable. Not so, however, with the diseased portion of the gut. As already stated, the carcinomatous affection had attacked its whole circumference, and the diameter of the passage was so much diminished at the upper part, that the alvine evacuations could scarcely pass through. Enemata produced little or no benefit; and it was only by the use of the bougies and of purgative medicines that the bowels could be relieved."

As the vegetations appeared to be re-forming, M. *Amussat* began at this time to apply lunar-caustic to the inferior constricted part of the gut, and chiefly to its posterior wall, with the view, says he, *de detourner l'irritation qui se propageait à la vessie.* The urinary distress was speedily much relieved: Broussais himself has noted in his diary at this time, *Je n' ai plus de spasme dans la vessie; quand il y a de l' urine, je la rends.*

During the next four weeks, the free application of the caustic* to the dis-

* M. *Amussat* had a large *porte-caustique* made on purpose, as the extent of the diseased surface, which it was necessary to cauterise, was so considerable.

eased surface of the rectum was made four or five times: upon one or two occasions it caused very great pain.

During all this time, the patient seems to have been becoming weaker: his feet began to swell, and little or no progress had been made in widening the passage of the rectum. Indeed it is stated in the report of the case by M. *Amussat*, that on exploring the rectum after the eighth application of the caustic, he found the upper opening of the constricted part so much narrowed that the fæculent matter, collected above the point, could not pass through at all.

After this date, M. *Broussais* went to his country-house at *Vitry*, expecting that his general health might be improved by the change. He gradually however became weaker and weaker, and on the 16th of Nov., after an ineffectual attempt to relieve his bowels, he fell into an apoplectic stupor, and died in a few hours afterwards.

Dissection.—We shall only notice the state of the rectum. The extent of the diseased portion was for about four inches or so from the anus upwards. At one part the surface exhibited a state of pulpy *ramollissement*, resembling, somewhat the appearance of cerebriform degeneration.* The sub-mucous cellular tissue was partially infiltrated with grumous purulent matter.

On the posterior part of the bowel, there was found a rupture of about an inch in extent; but this had taken place when the bowel was drawn away from its attachments.

At no part of the diseased portion was the gut observed to be much constricted: and, judging merely from the *post-mortem* state of the parts, one could never have anticipated the degree of obstruction that had been present during life. The portion however of the rectum and of the sigmoid flexure of the colon immediately above or beyond the diseased part, was found to be much more distended than it usually is.—*Gazette Medicale.*

Remarks.—We cannot dismiss the preceding report of M. *Broussais'* last illness, without expressing our fears that not only no good, but rather that positive mischief, was the result of the treatment that was adopted. M. *Amussat* is known we admit, to be an able surgeon; but, like many of his compatriots, he seems to us, judging from his conduct in his friend's case, not yet to have discovered the extreme importance of not doing over-much in certain circumstances, and of leaving a good deal to the kindly efforts of curative nature. If the disease in M. Broussais' case was really of a carcinomatous nature, as alleged in the report, the artificial dilatation of the gut by means of large bougies and the application of caustic to its surface, could not fail to aggravate the evil.

M. *Amussat* acknowledges that, from the first day that he examined the state of the rectum, his opinion was unfavorable as to the issue of the case. Was it prudent therefore, with such an impression on his mind, to be meddling so much as he seems to have done all along? It would appear that at one time he even thought of completely excising the diseased parts; but this idea was abandoned after the consultation with Messieurs *Breschet* and *Sanson*. It deserves notice too that the former of these eminent surgeons "*m'avait engagé*," says M. *Amussat*, "*amicalement à mettre beaucoup de circonspection dans mes operations.*"

Our only motive in thus remarking upon the present case is to caution the young surgeon against the employment of very energetic and hasty measures in the treatment of such a disease as obstruction—especially where it may depend upon a malignant thickening of the tissues—of any of the mucous openings of the body.

---

* We must not omit to mention that the putrefaction of the body was already considerably advanced, when the examination took place.

"Where the obstruction of the rectum is so great as to prevent the exit of the evacuations, there is a last, although a sad resource (says M. Amussat) which may be adopted with the view of preserving the patient's life—viz. the formation of an artificial anus."

The *idea* of such an operation, we should think, is scarcely admissible: we do not remember having ever read a case in British surgery of so hazardous, nay hopeless, an experiment. If the state of the alvine contents be kept uniformly fluid, the obstruction is rarely, or never, so great as to prevent their discharge. We fear that this most necessary precaution was entirely neglected by M. *Amussat* as he expressly mentions in his report that, at one of the latest examinations which he made in the case of M. Broussais, he felt with his finger a quantity of fæculent matter collected above the strictured part of the gut.—(*Rev.*)

ON THE ÆTIOLOGY OF CLUB-FEET.

M. *Guerin*, (of whose orthopædic labours we gave some account in the last Number of this Review), lately read before the Royal Academy of Sciences a memoir on the above subject, the substance of which we shall now communicate to our readers.

The main object of the author is to shew that muscular contraction is the immediate cause of the deformity of club-foot, and that this contraction is always connected with, and doubtless owing to, a disorder in some part of the nervous centres. He has examined an immense number of deformed and monstrous fœtuses, and he has thus been able, he assures us, to follow, step by step, the relation between the muscular contractions and the existence of disease in the cerebro-spinal axis—from a mere spot of morbid alteration at one point to the complete destruction of the brain and spinal-marrow.

The primary seat of the mischief is therefore to be found in a disease of the nervous centres; a spasmodic and permanent shortening of the muscles, whose nerves are derived from the diseased part, is the consequence; and in this manner a deformity, more or less considerable, is gradually induced and established.

Sometimes the convulsive affection has been general, affecting almost every part of the body; and then we find that not only are the limbs contracted, but that the features of the face also are more or less distorted, that the eyes squint, and that perhaps the shade of the cranium is deformed, or that the two sides of the body are unequally developed.

In other cases—and these are by far the most numerous—the muscular contraction has been quite local, and limited to the muscles of one part, such as of one leg or foot. That the deformity is really owing to the cause which we have now mentioned, is made evident by an attentive examination of a case of club-foot. We find that the muscles of the affected leg, especially the *gastrocnemii*, have undergone a more or less complete fibrous transformation—the natural consequence of the continued and exaggerated contraction to which they have been subjected:

In the living subject the calf of the leg is found to be flattened, shortened, and very prominent, with hard resisting edges; the toes are separated from each other; and the instep is much arched and drawn to one side or to the other. In short, we perceive an exact relation between the characters and direction of the deformed part and the degree of the contracted, tense, and *saillant* state of the muscles of the leg. Lastly, the deformity may in many instances be removed almost instantaneously by dividing the tendons of the contracted muscles.

When the retraction of the muscles has continued for a length of time, they are always observed to become more or less wasted or atrophied, compared with the other muscles of the limb. There is therefore a degree of *arrested develop-*

ment, to be taken into account in the ætiology of such deformities, as club-feet, &c. There are, in short, three elements, of morbid action to be admitted in analyzing the cause of these congenital irregularities—the spasmodic retraction of the muscles, a certain degree of paralysis, and, lastly, a consecutive arrest of development in the affected muscles.

M. *Guerin* sums up the results of his numerous observations in the following propositions:

1. Congenital club-foot is the effect of a convulsive contraction of the muscles of the leg and foot.

2. In the absence of general or direct traces of the convulsive affection, we may almost always discover some immediate characters, which indicate the nature of the exciting cause.

3. There are three constituent elements in the retraction of the muscles of the part—viz., the immediate shortening of their substance and tendons, a certain degree of paralysis and lastly a consecutive arrest in the development of the retracted muscular substance.

4. There exist no other causes of *genuine* congenital club-foot, than convulsive muscular retraction. The pressure of the parietes of the uterus on the fœtus appears indeed in some cases to produce a deformity of the limbs and feet, similar to, but not identical with club-foot—*Memoires de l' Academie.*

Remark.—The views of M. *Guerin* are certainly confirmed by the history of those cases, where the deformity occurs after birth. We know, for example, that various distortions of the extremities, including that of club-feet, are brought on by dentition, and other causes of nervous irritation.

The early history of Sir Walter Scott affords a well known and striking instance of this sort: for the first year or two of his life, his feet were quite sound and strong: but during a long infantile illness he became exceedingly feeble in his limbs, and eventually his (right?) foot was permanently deformed. —(*Rev.*)

ON THE SECTION OF THE TENDO-ACHILLIS IN THE TREATMENT OF CLUB-FOOT.

M. *Velpeau*, in a recent discussion at the Royal Academy on the ætiology of this deformity, alludes to the great success which has attended the operation of dividing the Tendo-Achillis. He states that upwards of 500 cases of club foot have been treated in this manner, and that almost all of them have been cured very quickly and without the least accident. M. *Duval* (whom we mentioned in our last number. in the article on the Orthopædic Establishments of Paris, *Rev.*) has operated at least 200 times; *Dieffenbach*, of Berlin, as often, and MM. *Guerin*, *Bouvier*, &c. in a number of instances,—in all with complete success.

"I regard, therefore," he says, "this operation as a *veritable conquete* in surgery."

M. CRUVEILHIER ON THE DOCTRINE OF ARRESTED DEVELOPMENT.

The discussion at the Royal Academy at Paris, to which we have alluded in the preceding article, arose from the reading of a paper by M. *Martin*, wherein he endeavoured to prove that all, or almost all, cases of club-foot are attributable to the compression of the parietes of the uterus on the feet of the infant during gestation, and that this undue compression is owing to the deficiency of the amniotic fluid.

M. *Cruveilhier* was appointed by the Academy to report upon this paper; and his report expressed a concurrence of opinion with the view proposed by M. *Martin*.

M. *Velpeau* canvassed the subject at considerable length, and, while he admitted that the compression of the uterine parietes may possibly be so great, sometimes, as to cause a deformity of the limbs, concluded by stating that he was rather inclined to seek for an explanation in some affection of the nerves supplying the affected feet, or in that part of the nervous centre from which these nerves proceed.

M. *Breschet* having endeavoured to prove that club-foot, as well as most other congenital deformities, are to be attributed to an *arrest* of the normal development of the affected part—

M. *Cruveilhier* rose to express his dissent from this favourite doctrine of organologists,—at least in a great number of the cases which are often adduced as confirmative of its truth.

It is well known that the theory of arrested development has been erected into a law by *Meckel* and *Geoffroy St. Hilaire*, and that it has been most ingeniously illustrated by M. *Serres*, in his various works on transcendental anatomy, and by M. *Isodore Hilaire*, in his recent work on Teratology.*

One of the fundamental positions of this theory is, that the human fœtus, and that of all mammiferous animals, exhibit at the early periods of intra-uterine life forms analogous to those of certain congenital deformities; and, that according as the development of any part is arrested at such or such a period of intra-uterine life, such or such a species of monstrosity will be the result.

Now in applying this theory to explain the cause of the deformity in question, one might expect that its supporters were prepared to prove that, at some period or another of embryotic life, the feet of the fœtus exhibited the appearance of what is known by the name of club-foot.

But no such assertion is made by them; or at least no representation or such a state of things is given in any drawings which we have seen, not even in those of M *Breschet* himself.

Without rejecting altogether the doctrine of arrested development as a key to the explanation of most congenital deformities, M. *Cruveilhier* went on to say, that a vast number of these irregularities are utterly irreconcilable with such an hypothesis For example; an infant is born by the buttocks; its feet are turned upwards and applied to the sides of the jaws; both feet and hands are distorted; there is a spontaneous luxation of one of the knee-joints, and there is, perhaps, at the same time, no anus, nor indeed any trace of pelvis at all. With any one presume to say that such a state of things is the normal condition of the fœtus at any period of embryotic life?

The partisans of this theory have gone so far as to say that a woman is only an imperfect or incomplete man, a man arrested in his development! (laughter.) And who among you can help laughing, when they tell you that the human fœtus is provided with branchiæ and has the organisation of a tadpole at a certain period of intra-uterine life?† I do not mean to say that M. *Breschet* carries his organogenic belief so far; but he will admit that I am only repeating what has been asserted by some of the advocates of the theory in question.

---

* Those readers, who may wish to know more on this very curious subject, and to trace the labours of these distinguished writers, will find it worth their while to refer back to an elaborate article on Philosophical Anatomy in the number of the Medico-Chirurgical Review for April, 1837.—(*Rev.*)

† These curious points will be found discussed in the article on Philosophical Anatomy, alluded to above.—(*Rev*)

Let it however, not be supposed that I reject the doctrine of arrested development *in toto*. The persistance of the foramen ovale, of the communication between the cavity of the abdomen and of the tunica vaginalis testis, the open state of the umbilicus, the occlusion of the pupil. &c. are all instances of what may properly enough be designated *arrested developement*.

But surely we cannot explain in this manner many of the irregularities of formation, which are not of unfrequent occurrence ; such as the double headed or double-bodied monsters, the presence of supernumerary limbs, &c. M. *Isodore St. Hilaire* has been obliged to admit a law of *exces de developpement*, in order to account for such anomalies ; while his father, M. *Geoffroy St. Hilaire*, attributes them to certain accidents during the life of the fœtus, and *Meckel* regards them as results of disease in the ovum.

If we pass from monstrosities *par excess* to those *par defaut*, such as Cyclopia, the deficiency of any of the limbs, &c. or if we consider those congenital malformations which consist in the displacement of organs, or even those which consist in the fissure of certain parts along the median line of the body, such as harelip, epispadias, hypospadias, exstrophia vesicæ, and spina bifida, we find that the presumed law of arrested development is very problematical.

To account for these irregularities recourse has been had to another alleged law of embryotic development,—that of *centripetal formation*, or in other words, the gradual coalescence of the two lateral halves of the body, which are supposed to be at first more or less apart and disunited along the mesial line.

At no period of its development have I (M. Cruveilhier) ever discovered anything analogous to these malformations in the healthy fœtus. I have shown that in all cases of spina bifida there is a hernia or protrusion of the spinal cord. The fissure or open state of the canal is in my opinion owing to this protrusion, separating mechanically the apophyses of the vertebræ, and not to any arrest in the development of their formation. I repeat that I know of no facts in embryotic anatomy, which warrant the conclusions which M. *Serres* and some other writers have endeavoured of late years to establish.

To advert very briefly to the subject of club-foot, which has given rise to the preceding remarks. M. *Cruveilhier* re-expressed his opinion that it is always attributable to the compression of the uterine parietes on the limbs of the infant, which acquire in consequence a faulty position. M. *Velpeau* has admitted various causes of club-foot. He does not deny that it may be sometimes owing to uterine compression ; only he explains in another manner how this takes place. According to his idea, it is the weight of the body of the fœtus itself, and not the pressure made by the uterine parietes, which causes the distortion of the limbs. But then we must remember that the hands, as well as the feet, are subject to various kinds of irregularity. M. *Velpeau* admits the influence of muscular retraction, of cicatrices, and lastly of an affection of the nerves of the limb, or of that part of the cord whence they arise.

These explanations are all applicable to cases of accidental club-foot, but certainly not to those of the congenital deformity.

Moreover until M *Velpeau* can prove that we can distinguish the *pieds-bots* produced by the different causes which he speaks of, I must abide by the doctrine of mechanical pressure as the general, if not the only, cause of the deformity.—*Memoires de L'Academie.*

NOVEL APPLICATION OF THE MICROSCOPE IN MEDICO-LEGAL EXPERIMENTS.

Dr. *Ollivier* remarks that the importance of this instrument to the medical jurist was pointed out, twelve years ago, by M. *Orfila* in his paper "*Du sperme*

consideré sous le point Medico-legal," published in the third vol. of the Journal de Chimie Med.

More recently MM. *Donné* and *Devergie* have shewn the valuable assistance which may be derived from its employment in numerous physiological enquiries; and they have particularly alluded to its utility in detecting the presence of the spermatic fluid either in the urethra and bladder after hanging, &c. or after its emission in cases of suspected violation.

The case however, in which M *Ollivier* first availed himself of the aid of the microscope, was in one of suspected murder. A hatchet was found in the house of a person on whom suspicion had fallen, eight months after the commission of the crime. It had been lying in a damp place and had become partially covered with rust. At one or two places on it were spots which looked like those from dried blood; and sticking to these places were what seemed to be some fragments of hair.

The following experiments were performed with the view of ascertaining whether there was actually dried blood on the suspected spots. and also whether the hairs in question were human or those of some of the lower animals.

The surface of the hatchet was scraped over water, so that nothing might be lost. At the expiration of some hours, the water was found to remain quite colourless. As the sesqui-oxide of iron (rust) might possibly prevent the solution of the colouring matter of blood, if such was really present, a few drops of liquor potasse were added; and the mixture, after being well shaken, was allowed to rest for some time. Still there was no discolouration of the fluid; and hence M. *Ollivier* concluded that it did not contain any blood.

The fluid was now filtered, and from the residue* on the paper were picked off with great care the filaments, which certainly looked like portions of human hair. The object was to discover whether these filaments were actually human hair or the hair of some of the lower animals.

For this purpose M. *Ollivier* examined numerous specimens of human hair, of different colours, with a powerful microscope, in order that he might compare his observation of these with his observations of the filaments in question. The following he ascertained to be the characters of human hair.

1. It has the same thickness throughout, from its base to its point.
2. The medium thickness of a human hair is the 6-100ths of a millimetre.
3. A central canal, forming a line of a less deep colour than the hair itself, may always be perceived.
4. Human hair, whatever be its colour, always exhibits a certain degree of transparency.

Now let us compare these results with the phenomena which the portions of hair on the hatchet presented under the microscope. It should be premised that none of these portions exceeded half an inch in length

1. Their thickness or diameter diminished sensibly from one extremity to the other; they were all *fusiform*. This character was especially remarkable in one which terminated at one end in a smooth point, and the other end of which exhibited a fringed border, corresponding evidently with the circumference which embraces the bulb or root of the hair: the conical cavity to., which contains the prolongation of the bulb, was distinctly visible at this end of the hair, and caused it to appear much more translucid than any other part of it.
2. Except in one, none of them exhibited the median line, which indicates the central canal of the hair; they were quite opaque in all their extent.
3. In all, the colour was reddish yellow, varying only in degree or depth;

---

* This residue was proved, by means of the hydrochloric acid and of the prussiate of potassa, to consist entirely of a ferruginous oxide.

their texture had not that transparency which the hair, in the former set of experiments, exhibited.

(Probably, the circumstance of the hair, found on the hatchet, having been so long dried and shrivelled may account for some of the differences alluded to by Dr. *Ollivier*.—*Rev.*)

4. Lastly, several of them exhibited lateral bulgings or swellings—an appearance never observed on human hair.

From the considerations now mentioned, Dr. *Ollivier* concluded that the filaments in question were not portions of human hair, but of the hair of some of the lower animals.—*Archives Generales de Medicine.*

QUESTION IN LEGAL MEDICINE, RESPECTING THE SWALLOWING OF PINS AND NEEDLES. SEVERAL CASES MENTIONED.

A servant girl, 17 years of age, was recently tried in Paris on the charge of having attempted the voluntary homicide of an infant, two months and a half old, by having made it swallow some pins.

The infant had been suddenly seized with a strangling suffocative attack on the 7th of April, and for several successive days it continued to suffer, as if some foreign substance was lodged in the throat.

No cause could be assigned for the symptoms, until on the morning of the 11th, the mother discovered three pins in the alvine evacuations; in the evening other four pins were found; and next morning again three more were seen mixed with the stools. Suspicion having fallen on the servant girl, she was arrested; and she then confessed that she had given ten pins to the infant on the 7th and 8th of the month. On being questioned as to her motive for the deed, she said that she had no unkindness towards the child, and that it was only in the hope of procuring her discharge from the place, and of being permitted to return to her own home.

A plea of temporary alienation or imbecility was set up in her defence. It would seem that, three or four years previously, she had exhibited a partial derangement of mind; and, in reference to the present charge, it was admitted by the father and mother of the child that the girl had been uniformly kind and attentive to her duties. M. *Ollivier*, who had been appointed by the court to report his opinion upon the medical history of the case, and upon the state of mind of the accused—while he admitted that he could not discover in her response to questions any symptom of mental derangement—was inclined to attribute the present act to one of those unaccountable perverse impulses of the mind, which are not unfrequent in certain females, more especially about their menstrual periods. The girl, it should be stated, although not exhibiting any decided marks of derangement, was of an unusually dull and unimpressionable character, and she seemed to be scarcely aware that she had done any thing improper. The jury assented to the opinion of M. *Ollivier* and acquitted the girl of the charge.

Remarks.—The following extract from M. *Dupuytren*'s Treatise on Gunshot Wounds may be appropriately inserted here. "I have seen at the Hôtel Dieu a great number of women and children, who had been affected with the strange mania of swallowing pins and needles. The most remarkable case was that of a woman, who, in consequence of having swallowed at different times an incredible number of pins and needles, had become emaciated to a skeleton, and was constantly bed-ridden from the acute sufferings which she experienced upon any movement of the body or limbs. I have opened upwards of a hundred little

abscesses in this woman: and at the bottom of every one of these I found one or more needles.

There were always from fifty to sixty of these tumors open in different parts of her body, produced by the presence of these foreign bodies. She died at last from hectic fever On examining the body after death, several hundred pins and needles were found scattered through the viscera, muscles, cellular substance, &c. in short through almost every tissue of the body.

Occasionally the needles or pins have been known to make their way through the skin, without giving rise to any abscesses being formed; and in other cases most of them have been discharged by the rectum, without occasioning almost any annoyance."

Boyer, in his large work, remarks: "needles and pins will sometimes traverse the stomach and intestines, and make their way into the liver and mesentery. Most frequently they penetrate the various tissues, without causing pain or inflammation, until they reach the skin in parts more or less removed from the alimentary passages. They have been known in some cases to have made their way into the urinary bladder, and to be discharged with the urine."

One of the most extraordinary cases on record is mentioned in Dupuytren's work already cited.

An officer, labouring under suicidal mania, plunged a long black corking-pin into the region of the heart. It had penetrated the pericardium, and was fixed in the substance of the heart itself, without having caused any alarming symptoms, during a period which could not be ascertained. Nothing had indicated its presence during the life of the patient.

Occasionally it happens, as indeed might be expected, that the needle or pin sticks in some part of the throat, and gives rise to most alarming distress. Many instances of death being caused in this way are related in the works of surgical writers.

Portal mentions a curious case of a youth in a drunken frolic swallowing the fragments of his wine-glass, which he had broken on purpose. Symptoms of violent distress in the stomach coming on, M. Portal gave him first a large quantity of soft-boiled cabbage with the view of entangling and enveloping the sharp pieces of glass and then an emetic to discharge all the contents of the stomach. The patient quite recovered.—*La Lancette Francaise.*

MM. ESQUIROL AND MARC ON THAT FORM OF INSANITY WHICH PREDISPOSES TO STEALING.

The following excellent observations precede the history of a case, which had been submitted to these two learned physicians by the court of law, with the view of obtaining their professional opinion to the sanity of mind in a lady who was accused of various acts of theft and pilfering.

"The annals of insanity," they remark, "record numerous well-attested facts, which satisfactorily prove the occasional existence of a *monomania* of *stealing*. The act seems to be, in such cases, the consequence of disordered ideas and of false conceptions, the offspring of a delirium, or of an instinctive uncontrollable impulse. The person cannot therefore be considered as culpable or responsible for his deed.

It may be readily supposed that it is often exceedingly difficult to determine this difficult and delicate question, when the state of mind is alleged as an exculpatory argument in favour of a person who has been accused,

A lady, 50 years of age, of hitherto irreproachable character, an excellent wife and mother, and of a generous disinterested and charitable disposition, arrives

at Paris, and there commits numerous larcencies in the shops of different tradesmen.

It was alleged in her defence, that her mind had not been perfectly sane at the time when she committed the acts.

Now, in all such cases, the first duty of the physician is to ascertain whether, at any former period of life, there has ever been any lesion or disorder of the mental powers. For if it can be shewn that such has been the case—always excepting, however, that form of delirium which may exist during an active fever, and which usually disappears with it—there is at once a presumption that the criminated act may have been the consequence of a partial insanity.

This presumption acquires much more force, if there be any hereditary or consanguineous disposition to insanity, in any of its forms, in the party accused, or in her near relatives. It is also much strengthened, if the mental lesion appear to be at all periodic in the return of its attacks. It ceases to be a mere presumption and becomes almost a certainty, when the commission of the criminated act occurs at a period coinciding with that of the usual recurrence of the mental disorder.

Now, in reference to the case of the lady in question, it appears that she was of a highly nervous and very impressionable temperament; that repeated distresses had aggravated this susceptibility of character; that she had been affected with puerperal mania, upon one occasion for five-and-twenty days, and that for several successive years since that attack, she had been subject, in the months of April and May, to head-ache, vertigo, and confusion of mind, accompanied with a propensity to suicide, and with a strange incoherency of speech.

At other times, too, her general demeanour indicated a want of steadfastness, and often a strange inconsistency of character, passing abruptly from benevolence and kindness to pettishness and anger, and from composure to most causeless excitement. In Mad. —— there were often too fits of taciturnity, during which nothing would induce her to speak or answer questions.

This taciturnity constitutes, indeed, a prominent character in some disorders of the intelligence, more especially in that form of melancholy associated with delirium or lypomania.

The melancholy insane are usually distrustful, suspicious,* and afraid of those who approach them; and it is often very difficult to obtain an answer to any questions we may put to them.

At other times, however, they are quite frank and communicative; and then it would be difficult indeed even to suspect the existence of any tendency to mental irregularity in their case.

MM. *Esquirol* and *Marc* allude also to the state of corporeal health in Mad. ——, as confirmatory of their view, that she was subject to attacks of monomania. Her temperament was decidedly bilious; she was subject to attacks of severe pain in the stomach, to distressing headaches, to various hysterical symtoms, to constipation, and to irregularities of the menstrual secretion. Often, too, there was a constant restlessness of the system, and no healthy natural sleep could be obtained. It would seem, also, that the various acts of stealing, with which she was charged, had been committed about that period of the year when Mad. —— was liable to a state of mental excitement, bordering upon melancholic delirium. Her pecuniary circumstances, it is to be also considered, were at the time quite easy and comfortable, and her disposition was rather

---

* That this character of monomania existed in Mad. ——, was evident from her aversion to MM. *Berryer* and *Muller*, two of her kindest and most considerate friends. Yet these two gentlemen she suspected to have been the instigators of her trial.

charitable and generous, than greedy and avaricious. When questioned by M. *Esquirol*, what was the state of her feelings at the moment of committing the thefts she answered, "*I scarcely know; but I had such a mad desire to seize every thing I saw, that, had I been in a church, I should have tried to steal from the altar itself.*"

This state of mind is certainly very singular and inexplicable, like many other intellectual phenomena; but it is no less real, as may be shown by reference to a great number of cases."—*Annales d'Hygiene, &c.*

M. ORFILA ON THE DETECTION OF THE SALTS OF LEAD IN THE STOMACH.

Every communication from the pen of M. *Orfila* on any subject of legal medicine is sure to be instructive and useful.

He has been lately engaged in a series of researches to determine the length of time that metallic poisons may be detected in the stomach and bowels after they have been swallowed. Most of his experiments have been performed with the acetate of lead.

A solution from 30 to 40 grains of this salt having been administered to a dog, he found, on dissection of the animal, that the mucous membrane was not inflamed and that the saline matter was deposited on the folds of this membrane of the stomach and of the duodenum, in tracts or lines of a dull greyish colour. By scraping for some time these tracts and washing the surface of the gut well with distilled water, the lead-salt was at once recognized by means of sulphuretted hydrogen, and of nitric acid.

In other experiments, M. *Orfila* did not administer more than six or ten grains of the acetate of lead; but the results were always the same as we have described.

If the salt has not remained in the stomach longer than two or three hours, the whitish or grey tracts* were very distinct, and could be effaced by rubbing the surface of the gut; they became more and more faint, and less easily removed with the back of the scalpel, the longer the period was that had elapsed from the swallowing of the poison.

By the fourth day, the tracts were no longer visible except with a magnifying-glass. Twelve days later, all traces of them had quite disappeared; but, by means of boiling the gut in diluted nitric acid, the presence of the salt of lead might still be discovered. It would seem therefore that the salt had by this time become infiltrated into, and in some degree incorporated with, the tissues of the gut.

After the lapse of a month from the injection of the salt no traces could be detected either by boiling, nor yet by incineration and subsequent analysis.

By attending to the circumstances now mentioned, the analyst may be enabled to form some idea—not indeed an exact one—of the length of time since the poison was swallowed.

Before closing these remarks, it may deserve to be noticed here that according

---

* These tracts or lines, when minutely examined are found to be made up of an infinitude of small points congregated together. The points are evidently composed partly of organic matter and partly of a preparation of lead; they adhere most closely to the mucous membrane, from which they cannot be effaced by rubbing the mucous membrane with the scalpel; they are insoluble in cold or in boiling distilled water; but the presence of the lead-salt in them may be detected by the application of the appropriate chemical tests, especially of sulphurretted hydrogen.

to M. *Devergie* and some other chemists, a small quantity of lead may always be detected in the tissues of the alimentary canal. This statement requires, however, confirmation.—*Memoires de l'Academie.*

M. Legroux on Endocarditis.

To M. *Bouillaud* belongs the merit of having first accurately distinguished and described this not unfrequent affection of the heart.

Endocarditis, or inflammation of the lining membrane of the cavities of the heart, is very often met with in acute febrile diseases, either as the primary and essential phenomenon, or as an accessory and consecutive complication. It is frequent in acute rheumatism and also in pneumonia.

A middle-aged robust plethoric man was admitted into the *Hôtel Dieu* last September, with severe articular pains and symptoms of general feverishness. He was bled and put on a low diet. Next day the cardiac region was found to be more extensively dull on percussion than usual, and a distinct *bruit de frottement* was audible. He was bled twice in the course of this day, and cupped over the heart.

For the next two or three days, the patient was better; but the auscultatory phenomena, now mentioned, were unchanged: the bleeding and cupping were ordered to be repeated.

Gradually the dulness on percussion diminished in extent, the *rubbing sound* ceased, but the pulsations of the heart remained strong and vehement. Mercurial frictions on the cardiac region were ordered, and castor oil was exhibited daily.

On the 14th day after his admission, the patient was quite free from all his rheumatic symptoms, and he had in a great measure recovered his strength, notwithstanding the quantity of blood which he had lost. The impulse of the heart was still very strong, and the *first* sound was accompanied with an intense blowing noise (*bruit de soufflet,*) which seemed to be prolonged along the course of the aorta.

Now, two opinions might be formed as to the cause of this blowing noise: it might be owing *either* to the great loss of blood, and the state of partial *anæmia* thus induced, *or* to an *endocarditis* affecting chiefly the aortic valves.

M. *Legroux*, inclining to the latter view of the case, recommended the patient to remain very quiet for a few days, and to have a large blister applied over the region of the heart. Next day the blowing sound accompanying the first beat of the heart had almost vanished, and the impulse of the organ was much less vehement.* Three days subsequently the patient left the hospital, entirely relieved of every rheumatic and cardiac symptom. Had the treatment been less active the foundation of an organic lesion of the heart would probably have been laid.

We have already said that Endocarditis may be the primary and essential disease in acute febrile affections. It is therefore of importance never to omit the auscultatory examination of the heart in all such cases, more especially when no particular organ, or system of organs, appears to be specially affected. After the most minute examination of all the great viscera of the body, it often happens that we cannot detect any decided symptom of disease, except an increased

---

* Does not the very suddenness, with which the alleged symptoms of valvular endocarditis disappeared, seem to indicate that they were of a *nervous* rather than of an *inflammatory* nature? M. *Legroux*, be it remembered, is a warm partisan of the *Bouillaud* school, whose peculiar tenets we have so often of late years alluded to in the pages of this journal.—*Rev.*

force in the impulse of the heart, and a more or less distinct and loud blowing sound, with or without a certain irregularity of the pulse.

A woman, 30 years of age, was admitted into the hospital with all the symptoms of *metritis*, which had been occasioned by exposure to wet and cold during a menstrual period. The application of 30 leeches to the vulva and the use of a hip-bath, had the effect of recalling the menses, and of at once relieving the inflammation of the uterus.

A few days subsequently, this patient was found to be in a state of high fever. With the exception of the heart, no organ was the seat of pain or of any symptom of inflammation: the impulse of the heart was strong, and its first beat was accompanied with an intense *bruit de soufflet*. The heart therefore being the only organ *veritablement affecté*, the cause of the fever was attributed to *endocarditis*. An active antiphlogistic treatment, consisting in venesection, cupping, &c. was immediately resorted to, and the disease was speedily arrested. The blowing sound diminished in intensity by degrees and ceased entirely in the course of a few days, notwithstanding the large quantity of blood which had been drawn.

A youth had been seized with violent palpitations of the heart after severe exercise during the hot weather of summer. He had been ailing for several months, when he was admitted into the hospital. At this time, his face was flushed, his pulse was rapid and strong, and his breathing was much distressed; there were present the usual symptoms of bronchitis; and superadded to these, the impulse of the heart was found to be abnormally violent, and a loud blowing noise was heard on applying the ear above the left mamma. The patient was speedily relieved by venesection and cupping from all his urgent distress: the blowing noise over the heart continuing, a large blister was applied. In the course of a day or two, this symptom likewise disappeared. It returned however, and a second blister was applied, and a strong decoction of asparagus was ordered: the pulse fell to 48 beats in the minute, and became somewhat irregular.

The *bruit de soufflet* had not quite ceased when the patient left the hospital; it was always found that it became louder, when from any cause the action of the heart was quickened and increased in force.

From the observation of such like cases as the present, M. *Legroux* strongly recommends to physicians to examine minutely the state of the heart in all cases of acute febrile excitement, when the local symptoms, such as the articular pains in rheumatism, are not proportionately severe with the constitutional disturbance. He is of opinion that, in a great number of patients who have suffered from acute febrile affections, the seeds of heart-disease are laid at the time of such attacks, although the more obvious and characteristic symptoms are not developed till long afterwards.

Hitherto pathologists have not examined with sufficient care the condition of the *endocardium;* it is only of late years that their attention has been drawn to the subject.—*La Lancette Francaise.*

Remarks.—Like most of his *compatriots*, M. Legroux is apt to carry his favorite notion *a l'outrance*. He seems to attach no value to any remedies in the treatment of endocarditis, except blood-letting, local and general, and blistering. The prudent physician will not neglect the use of mild mercurials, of saline diuretics and purgatives, &c.—*Rev.*

PATENCY OF THE FORAMEN OVALE, AND OF AN INTER-VENTRICULAR OPENING IN A CHILD EIGHT YEARS OF AGE.

The child was recently admitted into the Hôtel Dieu, under the care of M. *Magendie*. She had attained the usual height of her age, eight years; and had up to the fifth year enjoyed moderately good health, with the exception of a great susceptibility to catarrhs. At this period, her cough and breathing became more laboured and distressing; the slightest exercise bringing on dyspnœa and suffocative paroxysms, during which the face, tips of the fingers, &c. assumed quite a purplish hue. All the other functions of the system were performed with regularity, as in health. The distress in breathing gradually became increased; and the intervals of ease became much shorter and less complete. The child was affected too with almost continued palpitations of the heart; and the surface of the face, hands, and feet almost constantly exhibited a purplish hue.

In this state she was admitted into the hospital in February, and remained there until the period of her death, at the beginning of April.

Dissection.—Omitting the appearances observed in the other organs of the body, we shall confine our remarks to the state of the heart. The right ventricle was much hypertrophied, and also considerably dilated; the left one was of normal dimensions and thickness. The auriculo-ventricular, and also the mitral and tricuspid, valves were perfectly sound. At the upper and median part of the septum between the two ventricles, were found an aperture, sufficiently large to permit the little finger to be passed through it. Its edges were rounded and smooth, but studded with a few eminences or mamillæ: there were no appearances of any false membranes or traces of cicatrization.

The aorta and its valves were healthy. The pulmonary artery was so much contracted, that a female catheter could not be passed through its ventricular orifice; on slitting it open, only two sigmoid valves were observed. The volume of this vessel became considerably larger before dividing into its branches. The *foramen ovale* was patent, and was wide enough to allow the handle of a bistoury to pass through. When the heart was however laid in position, the opening was closed by the apposition (*addossement*) of the parietes of the inter-auricular septum.

Remarks.—This case is an example of a remark made by *Louis Berard* and *Bouillaud*, that the patency of the *foramen ovale* is usually connected with some obstruction to the free exit of the blood from the right ventricle. The pulmonary artery being so much contracted, the blood could not be easily discharged from this cavity. The effects of this are the dilatation of this cavity, and also the *arret du development* of the inter-ventricular septum at its basis—that portion of it which is last completed in the embryo.—*Archives Generales.*

THE UTILITY OF LARGE DOSES OF TARTAR EMETIC IN EXTERNAL INJURIES.

MM. *Delpech* and *Lallemand*, two of the most distinguished professors of the Montpelier School, have for a number of years been in the habit of employing the *antimonial treatment in* cases of severe wounds and other external injuries with much advantage. The following cases, recently reported from the clinique of M. *Lallemand*, afford sufficient proofs of it efficacy.

Case 1. A middle-aged man had his left thigh-bone broken by the wheel of a carriage passing over it. When conveyed to the hospital, he was bled and the limb was placed in an easy attitude. On the third day, he was very feverish,

and in extreme suffering. The injured limb was excessively swollen, tense, and painful; the inguinal glands were hard and swollen, and an effusion had taken place into the knee-joint. Eight grains of tartar emetic were ordered, two grains to be given every two hours—vomiting followed the first dose.

The same quantity was repeated next day, and the dose was increased to twelve grains on the succeeding one. By the sixth day, there was a very decided amendment in all the symptoms. A puncture was made at the lower and outer part of the thigh, and a large quantity of bloody serum, mixed with flocculi of cellular substance, was discharged by the wound. The antimonial was omitted, and the patient put on a more generous and tonic treatment.

Remarks.—The antimonial acted, in this case, as it usually does. The first dose induces vomiting; the *tolerance* is then established; and this continues as long as the inflammatory symptoms are present. When these are overcome, the antimonial irritates the stomach; and its use is then to be suspended. It is a curious circumstance, the truth of which has been confirmed by the experience of almost every one who has adopted *la methode Rasorienne*, that the establishment of the *tolerance* is usually in a direct relation to the severity of the disease.

Case 2. *Compound Fracture of the Leg, and Dislocation of the Ancle-Joint; recovery and cure.*—A man fell from a scaffold and met with a compound fracture of the leg, complicated with dislocation of the ancle-joint inwards. The reduction and adjustment of the parts were effected without much difficulty; but immediately afterwards the patient was seized with epileptic convulsions. He was bled from the arm, and pills containing the cyanuret of potassium were ordered. Next day a six-ounce mixture, containing 12 grains of tartar-emetic, was prescribed—an ounce, to which 10 drops of laudanum were added, to be given every three hours.

Vomiting was induced only once, the *tolerance* being then quite established. The injured limb was easily free from tension, and the system, which at first had been feverish, was cool and tranquil The dose of the antimonial was increased to 15 grains. On the fifth day after the accident, the wound of the leg had nearly healed; the antimonial was now omitted, and a somewhat more nourishing diet was allowed. The recovery was progressive and eventually complete.

In certain cases the *tolerance* of the antimonial is never established, and the use of the medicine cannot therefore be safely persevered in. The following is an instance of this kind.

Case 3. *Compound Fracture of the Leg: Intolerance of the Antimonial; death.*—A woman, 54 years of age, was received into the hospital Saint-Eloi at Montpelier, with a compound fracture of the right leg. The reduction being effected, the limb was enveloped in a large *laudanised* poultice, and an anodyne draught administered. Next day the patient was feverish and excited, and the limb was painful and swollen. She was bled: and eight grains—two to be taken every four hours—of the emetic tartar were prescribed. The first, second, and third doses of the medicine caused excessive vomiting and purging; the wound had become disturbed, and the patient complained of severe pain in the stomach, with thirst, scanty urine, &c.

An enema, containing five drops of laudanum, was administered. In consequence of the profuse suppuration from the wound, hectic fever came on, and the patient died exhausted.

(*Remarks.*—Judging from the report of this case, we cannot regard it as a fair instance of the insusceptibility, or want of tolerance, on the part of the system to the large doses of the antimonial. How is it that no preparation of opium was added to the mixture! Such a combination is almost always neces-

sary, and always useful. Then again, the judicious practitioner will, under certain circumstances exhibit much smaller doses than two grains at a time, and at shorter intervals.

We were almost inclined to smile on reading that *five drops* of laudanum were given in an enema to an adult! Such fractional doses will certainly not suit English practice.—(*Rev.*

Two cases of severe injury of the head, in which the antimonial treatment was adopted with excellent effects, are then recorded; but our limits prevent us from doing more than merely alluding to them.

Before concluding these observations, we may remark that an obstinate constipation is apt in many cases to follow the suspension of the large doses of the antimonial. We are not aware that the attention of medical men has been hitherto directed to this circumstance.—*La Lancette Francaise.*

Cursory Remarks on Scrofula, Syphilis, &c. By M. Marjolin.

Scrofula.—Scrofula is truly a disease *totius substantiæ* of the body; no tissue or structure is exempt from its invasion.—Its *proximate* cause is unknown; the chief *predisposing* cause is unquestionably an hereditary taint of constitution, which seems more frequently to come by the mother's, than by the father's side. It is not contagious.—All ages are liable to it under some form or another: infants at the birth have exhibited lymphatic swellings, and M. *Marjolin* says, that he has seen scrofulous disease appear in old men, who had never shewn any symptoms of it in the earlier periods of life.

There is often a tendency in scrofulous diseases of the *external* parts of the body to subside or disappear altogether at the age of puberty; but in numerous other cases there is a very marked disposition to it affecting, at this period of life, some of the *internal* organs, and more especially the lungs: this is of more frequent occurrence in females than in males.—There is a tendency in some systems to a scrofulous swelling of those lymphatic glands which are situated by the side of the trachea and at the root of the bronchi: in such cases the most prominent symptoms are frequently a troublesome dry cough, and a sense of heat behind the sternum, while perhaps no deviation from the healthy sound of respiration can be perceived with the ear.

The affections of the mucous tissue, which are of most frequent occurrence in scrofulous subjects, are opthalmia, otitis, coryza, angina, bronchitis, and fluor albus.

The intestinal mucous membrane is not so frequently diseased.

The fibrous, cartilaginous, and osseous tissues, are it is well known, very liable to scrofulous action.

Scrofulous inflammation is seldom very active and acute; it is much more frequently of a sub-acute, or of a chronic nature; and, when it passes on to suppuration, the purulent matter is very different from that in a common or phlegmonous abscess.

Causes.—Besides hereditary descent, which is certainly by far the most frequent remote cause, we may mention a poor unwholesome diet, a cold moist climate,* insufficient exposure to light, the debility induced by long-continued

---

* The influence of climate in exciting the scrofulous disposition into action is often apparent in those persons, who come from warm climates to reside in the variable regions of Europe. The lower animals too suffer in the same way: most of the monkeys, &c. in zoological collections die from tuberculous disease.

indisposition of any sort; in short, whatever has a tendency to lower the energies of the system, whether it be of a physical or of a mental origin. That poverty of diet alone is however inadequate to excite the scrofulous mischief, is apparent from the circumstance of its being rare among the inhabitants of many mountainous countries, who, although ill and scantily fed, enjoy the invigorating influence of a pure atmosphere.

The external characters of physiognomy so to speak, of a scrofulous habit are so well known that it is unnecessary to detail them. There is, however, one or two of these characters which are less frequently mentioned, but to which M. *Marjolin* calls especial attention. One of these is an intumescence of the lower part of the abdomen: this may be caused either by an enlarged state of the mesenteric glands, or by an hypertrophy of the mesentery itself; or it may arise from an unusual prominence of the lumbar vertebræ. We may next allude to the thinness or smallness of the joints at their middle part, arising partly from a deficient development of the adjacent muscles, and partly from a preternatural fulness of the articular condyles. There is a peculiarity in the state of the second phalanges of the fingers; they are usually observed to be swollen, and awkwardly swollen; and hence the fingers are apt to have an ugly spindle-shaped form.

Treatment.—M. Marjolin very judiciously insists upon rigid attention to the following dietetic directions; wearing flannel dresses next the skin; the use of gymnastic exercises; residence in a pure, dry, and invigorating atmosphere; bathing, especially in the sea; and a generous, but a moderate, diet.

Very active, or long-continued, depletory remedies are seldom well suited for any scrofulous ailments, even when they are attended with considerable local inflammation. The application of a moxa over a part affected with scrofulous inflammation will often relieve the complaint much more effectually and much more rapidly than the use of leeches, poultices, &c., provided there is not a feverish excitement of the system present.—The continued application of heated salt to a scrofulous tumor will often succeed in dispersing it. M. *Marjolin* disapproves of mercurial frictions in such cases.—A scrofulous abscess is not unfrequently dissipated, without breaking, by the use of one or more blisters over the part.

The most potent internal remedies against scrofulous disease are iodine and iron: these may be advantageously combined in a number of cases. The recently introduced ioduret or iodide of iron is an excellent medicine.

M. *Marjolin* alludes to the occasional very singular development of the hair on the integuments around the scrofulous swelling. Boyer, many years ago, had remarked this occurrence in a very striking degree in patients after a phlegmonous affection of the leg, and also after a contusion; we observe it occasionally also after the application of a blister.

SYPHILIS AND GONORRHŒA.

It has been remarked that, when the venereal poison is introduced into the system by an excoriated surface of the finger being accidentally infected, the disease usually runs a very rapid course, and is extremely difficult of cure. The period at which the constitution is commonly tainted after the development of the local disease, varies from 24 to 48 hours to ten days and upwards. The period of incubation of the local disease itself also varies considerably—from a few days to nearly a month.

M. *Marjolin* is of opinion that, when constitutional syphilitic symptoms follow a gonorrhœa, there has always been a chance within the urethra.

One of the most frequent causes of gonorrhœa is a peculiar unhealthy state of the catamenial secretion. M. *Marjolin* describes this state as arising in the

following manner. In some women menstruation takes place *en deux temps;* one of exsudation or secretion, and another of excretion. In consequence of the turgescent state of the os uteri, the catamenial fluid cannot escape, but is retained for several days within the cavity of the uterus; hence it partly coagulates, and, when discharged, it is always more or less offensive. The irritation of the vagina thus induced will often give rise to all the phenomena of genuine gonorrhœa.

M. *Marjolin* alludes to the occasional metastasis of gonorrhœal inflammation to the eye or to some joint, more especially that of the knee, which occasionally happens in consequence of the retrocession of the urethral discharge from exposure to cold, from over-walking, &c. The arthritic or rheumatic affection in such cases is usually violent and rapid in its progress, and very often induces a copious effusion into the cavity of the joint.*

The *orchitis* or *hernia humoralis*, which not unfrequently occurs during an attack of gonorrhœa, should be regarded not so much as the *result* of the stoppage of the discharge, as the *cause* of it. M. Marjolin has seen an accidental attack of pneumonia induce a similar stoppage—occasionally the *vas deferens* becomes inflamed along the greater part of its course: this is usually accompanied with considerable swelling of the enveloping cellular tissue in the groin and along the abdominal canal. The tumefaction thus occasioned, may cause a constriction of the spermatic cord, which is not unfrequently accompanied with severe pain, vomiting, and the usual symptoms of incarcerated hernia.

Cases have occurred, even to such men as *Dupuytren* and *Roux*, where this mistake in diagnosis was committed, and the real state of the parts was not discovered until an incision had been made upon the tumor. It is necessary therefore to use great caution in determining the nature of any painful tumor situated in the groin, when the ordinary symptoms of strangulated hernia are present at the same time.—*Journal des Connaissances Med. Chirurgicales.*

M. RICORD'S TREATMENT OF SYPHILITIC CONDYLOMATA, AND OF GONORRHŒA.

"Whatever be the seat," says the author in his recently-published treatise on syphilis, "of the mucous tubercle—the anus, the vulva, the inter-digital spaces, &c.—the following local medication will be found to be *vraiment specifique par la rapidité de ses resultats*, provided the constitutional treatment is attended to at the same time.

The parts if not ulcerated are to be bathed with the pure solution of the chloride of soda; if they are ulcerated or inflamed, the solution is to be diluted with just so much water as that the application will cause a tingling or smarting when used. The diseased surface is then to be well sprinkled over with calomel. This treatment is to be employed twice a day.

Eight or ten days usually suffice to get rid of those large masses of tubercles, which we not unfrequently meet with between the toes, and which prevent some patients from walking for several months."

---

* M. Ribes and others highly praise the internal use of the copaiba balsam in gonorrhœal rheumatism. In our opinion, the employment of antiphlogistic remedies and of mercury, should precede that of any stimulating resinous medicines. The hydarthrosis, which remains, may usually be dissipated by enveloping the joint with strips of a discutient plaster: puncture of the capsule, although practised by M. Lallemand, should never be resorted to.

Treatment of Gonorrhœa. M. *Ricord* strongly advises the application of 20 or 30 leeches to the perineum during the active or inflammatory stage of the disease. He administers the copaiba balsam at the same time: it is the *anti-blenorrhagique par excellence.* Mild astringent injections are to be used, when the acute symptoms have passed away.

ALUM INTERNALLY USED IN GONORRHŒA.

Dr. *Friedrich* of Leipzig, strongly recommends the internal use of alum in the inflammatory stage of gonorrhœa. He gives a table-spoonful, three times a day, of the following mixture.

℞. Aluminis Supersulph. ʒj.
Aquæ Distillat, ʒvj.
Succi Liquir, ʒj. Misce.

In the course of a few days, under the use of the mixture, the pain and heat in passing urine and other acute symptoms abate When this takes place, he usually adds some copaiba balsam and powdered cubebs to the mixture, if the discharge continues. He has never observed that the alum disturbs, or in any way interferes with, the action of the bowels; it usually diminishes the quantity of the urine.—*Schmidt's Jahrbucher.*

We have no experience ourselves of the effects of alum in gonorrhœa, nor are we aware that it has been used by British practitioners for the treatment of this disease. That this salt however exerts a very decided astringent power upon the urinary passages, we have more than once ascertained in cases of hæmaturia. No remedy seems on the whole to be so safe and so effectual in relieving this complaint, provided always it be unaccompanied with inflammatory symptoms. —*Rev.*

ON THE COMPOUND SALTS OF IODINE AND MERCURY IN SYPHILIS.

M. *Puche*, physician of the Hôpital du Midi, has for some years past used pretty extensively both the iodide, and the bin-iodide, of mercury in the various forms of syphilitic disease. The disadvantage of the first of these preparations is its tendency to excite very quickly a profuse and distressing salivation. The bin-iodide is a more manageable salt, and has succeeded in M. Puche's practice very well, in the treatment of both the primary and the secondary forms of syphilis; its action however, he says, is very tardy. He has lately found that a combination of this salt and the iodide of potassium (the hydriodate of potash) exert much more quickly a curative power over the disease; and he recommends this compound to his professional brethren with much confidence, as an excellent remedy. The formulæ, which he uses, are the following:

℞. Biniodi hydrargyri, gr. viij.
Iodidi potassii, gr. viij.
Aquæ distillatæ, ʒviij. Solve.
Dose, from ʒij. to ʒij. in 24 hours.

℞. Biniodi hydrargyri, gr. viij.
Iodidi potassii, gr. viij.
Sacchari lactis, gr. lxiv.
Mucilag. arab. q. s. In pil. 32 divid.
Dose from one to eight daily.

N.B.—The pills must be covered with gelatine to preserve them from diliquescence.

According to M. *Puche*, the medium duration of the treatment with the simple biniodide is from 50 to 60 days, and the average quantity of the salt to be taken is from 80 to 120 grains. He commences with one grain daily, increasing the dose every third day by one additional grain.

M. *Puche* mentions that he is in the habit of testing the character of the secretion from venereal sores by inoculating the patients with it in the thigh or arm. If the infectious quality of the discharge continues, the puncture will exhibit on the third or fourth day *une pustule ecthyma caracteristique de l'infection, pustule qui presentement est ulcrée et très sensible.—Bulletin General de Therapeutique.*

UTILITY OF NUX VOMICA IN VARIOUS FORMS OF PARALYSIS.

M. *Petrequin*, one of the surgeons of the Hôtel Dieu, at Lyons, has recorded his experience of this powerful drug, in an elaborate and very practical paper in a recent number of the Gazette Medicale.

He employs it both internally and externally. He prefers the alcoholic extract—prepared with two pounds six ounces of the grated nuts, and 22 pints of alcohol—to the strychnine for internal use; beginning with the eighth part of a grain for a dose, and gradually increasing it to two, three, or even five grains in the course of the day.

For external use, the strychnine is, as matter of course, to be preferred.

M. *Petrequin* alludes to the frequent failure of the endermic use of strychnine, owing to the vesicated surface, to which it is applied, becoming covered with a layer of coagulable lymph. In consequence of this, the strychnine is not duly absorbed. This layer of lymph should be removed as well as possible at each application; but, as the vesicated surface becomes daily less and less absorbent, the dose of the strychnine must be proportionally increased. The mode which M. *Petrequin* recommends, is to sprinkle a third or fourth of a grain of the alkaloid, mixed with two or three grains of the powdered nux vomica itself, on the surface, which has been vesicated by means of the *pommade ammoniacale*.

Along with the use of the strychnine in this way, he employs a tincture of the nux vomica—prepared with four ounces of it in powder and one *litre* of brandy—as an embrocation to and around the palsied parts.

M. *Petrequin* has related several cases of, more or less complete, *hemiplegia*,—which were either quite cured or greatly relieved by the use of the nux vomica.

In all of them, the muscles of the palsied parts became affected with sudden involuntary twitchings, and the patients experienced electric-like shocks in different limbs, before the complete recovery of their lost powers.

Four cases of *paraplegia* also, in which the strychnos seemed to act most beneficially, are recorded.

In the first of these cases, the paralysis was the result of a severe injury of the back from a heavy log of wood falling upon it. For three months, the patient had been confined to bed, when M. *Petrequin* first visited him. Although the sensibility and motility of the inferior limbs had begun to return, and the general health of the patient to be somewhat re-established, he was still so helpless that he could neither stand, nor even support himself sitting in bed. There was also a complete incontinence* of the urine, so that it was continually

* For the first three weeks after the accident, there was a retention of the

escaping drop by drop, and, to add to his distress, an ulcer had formed over the sacrum.

A large vesication over the loins was raised by means of the *pommade ammoniacale*, and the excoriated surface was then sprinkled with a fourth of a grain of strychnine, mixed with three grains of powdered nux vomica: this was repeated every day.

Within a week a very decided amendment was visible; for not only was he able to sit up for some time, but he also began to retain his urine to a certain degree.

A fresh blister was twice repeated within the next fortnight, and the dose of the strychnine was raised to half a grain.

By this time, he was able to walk a little with the assistance of a stick, and he could now hold his urine for two hours at a time. The treatment was persevered in for some weeks longer, and ultimately the patient quite recovered the use of his limb, and command over his bladder. No preparation of the nux vomica was administered internally.

In the next case, the *paraplegia* was connected with a gibbosity of the dorsal vertebræ in a youth 19 years of age, and was accompanied with a retention of the urine.

Three small caustic issues were made on each side of the projection; and two pills, containing each a quarter of a grain of the alcoholic extract of nux vomica, were administered daily. The dose was gradually increased, so that at the end of the third week, the patient took three grains daily of the extract. By this time, the bladder had recovered in a great measure its contractility, and the patient was able to stand with the support of a stick. The treatment was steadily persevered in for some weeks longer; the dose of the medicine had been increased to seven grains daily, and the recovery was so steadily progressive, that, at the end of two months from the commencement of the use of the nux vomica, the patient was able to run about the ward of the hospital.

Several cases of *local paralysis*, as of one or more of the fingers, of the deltoid muscle, &c. treated successfully with the nux vomica—either in the way of frictions with the tincture, or of the endermic use of the strychnine, as explained above—are then detailed by M. *Petrequin*.

Local *anæthesia* also, or loss of sensibility in a part, has in numerous instances yielded to the use of embrocation with the tincture.

A woman, 46 years of age, had for four years been affected with a complete loss of sensibility along the outer half of the left thigh: she dreaded the cold much, and experienced now and then sharp pains in the part, which felt to her to be quite dead. After the application of a few leeches, the tincture of nux vomica was rubbed on the part night and morning. In the course of a week the *anæthesia* had quite ceased.

Lastly, several cases of amaurotic blindness, which were decidedly and quickly

---

urine, so that it required to be drawn off several times in the course of the twenty-four hours: it was very sedimentary, and occasionally almost as white as milk.

* M. *Petrequin* mentions that he has treated successfully many cases of nocturnal incontinence of urine occurring in children, with the tincture of nux vomica, as an embrocation to the loins and perineum. Another method, to which he has sometimes recourse, consists in the introduction into the rectum of a seton or thick skein of thread well smeared over with a cerate of nux vomica.

In the *Archives Generales*, for January, 1836, several successful examples of the internal use of the medicine are related.

relieved by means of friction over the temples with the tincture of the nux vomica, are detailed at length. It is unnecessary to mention the particulars of these cases, as they are all more or less like each other. Suffice it to say that the remedy is useful only when the amaurosis is simple, and uncomplicated with an inflammatory or congestive state of any of the tissues of the eye.—*Gazette Medicale.*

TREATMENT OF AMAUROSIS BY THE CAUTERIZATION OF THE CORNEA; AND BY STRYCHNINE.

M. *Lisfranc* has for a number of years been in the habit of treating many cases of Amaurosis and of Mydriasis by the application of the nitrate of silver to the cornea, with the view of stimulating the nervous and vascular apparatus of the eye, and more especially the branches of the fifth pair of nerves.

The stick of caustic should be lightly applied to five or six points in the circumference of the cornea: a slight injection of the blood-vessels of the eye is induced, but no inflammation is excited. A copious secretion of tears and of the nasal mucus follows; a smart pain is not unfrequently felt in the forehead and cheek; the pupil is contracted, and the retina becomes more impressionable, and the globe of the eye is powerfully rolled about by the spasmodic action of its muscles. In some patients, the stomach is so much disturbed, that vomiting follows the application of the caustic. The following case will shew the good effects of the treatment now recommended.

A man, 38 years of age, had for about six months found his vision to be becoming gradually more and more indistinct, when he applied for admission into the hospital de la Pitiè. All objects seemed to be enveloped in a thick mist, and occasionally to be surrounded with luminous circles. He had been treated with blisters over the forehead and temples for several weeks; but this treatment had not produced any benefit.

When admitted into the hospital, he was so blind as not to be able to guide himself; still he could distinguish between darkness and light; the pupils were much dilated, and did not contract. M. *Lisfranc* cauterised the ocular conjunctiva, at the inferior part of the cornea, for about two lines and a half, on the 23rd of October.

On the following day, the conjunctivæ were highly vascular; the patient complained of severe headache, and he was also slightly feverish. He was therefore bled and put on spare diet. The febrile symptoms were relieved; and, on examining the eye, the pupil was observed to be less dilated than it had been.

On the 28th, the conjunctival inflammation is reported to be less; the pupils are contracted, and the patient begins to see a little more clearly.

On the 30th, the ophthalmia had almost disappeared, and the pupils *reviennent sur elles-memes*; the patient was able to distinguish the number of fingers held before his eyes. In the course of two or three weeks, the patient left the hospital, having his vision greatly improved.—*Bulletin Gen. de Therapeutique.*

M. *Malgaigne*, one of the surgeons of La Charité hospital, has in one of the late Numbers of the *Lancette Francaise*, published several cases of obstinate amaurosis successfully treated with strychnine. From an eighth to a half of a grain is to be sprinkled on a recently-blistered surface in the neighborhood of the affected part, as the temple or forehead. Care should be taken that the blistered surface does not become coated with a layer of lymph, as the absorption of the medicine will thus be completely prevented. Indeed, unless the strychnine produce its peculiar physiological effects—such as pricking or darting pains in the part, sparks of fire before the eyes, headache, &c.—we cannot expect any benefit from its use in amaurosis.

PARALYSIS OF THE ARM. UTILITY OF ELECTRO-PUNCTURE.

A man, 52 years of age, suddenly lost all power of motion and feeling in his right arm, from the shoulder downwards. The attack was not preceded or accompanied by any symptoms denoting cerebral or spinal lesion; nor had there been any of the usual characters of rheumatism ever experienced by the patient.

The use of blisters and moxas along the *trajet* of the radial nerve was tried in the first instance; and with a certain degree of relief. But what seemed to be much more efficacious, was the employment of electro-puncture along the course of the nerves, from the shoulder down to the hand. The insertion of the needles caused little or no pain at first; but gradually the operation became more and more severe as the sensibility of the limb returned.—*La Lancette Francaise.*

MR. BLANDIN ON TRAUMATIC PARALYSIS OF THE ARM—HÔTEL DIEU.

A soldier, 35 years of age, had the misfortune to dislocate his right arm at the shoulder-joint: the luxation was easily reduced; but a complete paralysis of the entire extremity was the consequence. M. *Blandin* ordered frictions with a stimulating embrocation at first, and then successive blisters over the *trajet* of the brachial plexus, the vesicated surface to be dressed with a solution of strychnine. After the fifth blister, a manifest amendment ensued, and M. *Blandin* advised a repetition of the same treatment, which ultimately proved quite successful.

Remarks.—The paralysis of the arm, following an external injury, presents itself under several forms:

1. The leison may have affected only the *circumflex* nerve of the deltoid muscle. When this is the case, the paralysis is limited to the shoulder-joint alone, and the patient cannot raise the arm, but all the other parts of the limb retain their normal integrity. This lesion may be the consequence of a direct injury of the joint, as a blow or a fall upon it. The most successful treatment of such cases consists in the use, after the immediate effects of the contusion have been removed, of an embrocation composed of tincture of cantharides, ammonia, balsam of fioraventi and almond-oil,* to be rubbed night and morning upon the part. Sometimes however the paralysis resists this and every other remedy that can be devised.

2. The paralysis may be owing to a lesion of the brachial plexus in its sub-axillary portion, in consequence of the dislocated head of the humerus pressing upon it. When such is the case, the patient experiences a sharp pain at the time of the accident; and the pain is usually accompanied with a sensation of cold and formication in the limb, which has already become quite powerless. A treatment, similar to what we have recommended in the former instance, will often succeed in removing the complaint.

A copious eruption of painful pustules on the part, induced by the application of some strong liniment, seems to be often of great use in traumatic paralysis.

Most surgical readers are aware that the dislocation of the joint is extremely apt to recur, as long as the weakened state of the surrounding muscles continues.

---

* The late Baron *Boyer* was much in the habit of prescribing this formula.

℞. Balsami fioraventi..... ʒiv.
Tincturæ lyttæ ..... ʒss.
Liquor. ammoniæ dil... ʒss.—Misce, fiat liniment.

3. The source of the traumatic paralysis of the arm is sometimes seated at the origin of the brachial nerves. The efforts to reduce a dislocated limb, if too violent, may cause a lesion of the roots of these nerves; and the consequence of this lesion may be a sort of rachidian apoplexy or a violent myelitis, which has on several occasions proved fatal. Works on military surgery record many cases of this lesion, arising from gun-shot contusions.

Even under such unfavourable circumstances, as those to which we have now alluded, the well-directed efforts of the surgeon have often succeeded in restoring the use of the limbs. If the use of stimulating embrocations and of blisters prove inefficacious, Baron *Larrey* very strongly recommends the repeated application of the moxa along the whole *trajet* of the affected nerves. The recent experience of M. *Baudens* at Algiers quite confirms the statements of the Baron.

The endermic use of strychnine at the same time affords us a *veritable richesse nouvelle* in the treatment of such cases. With respect to this powerful remedy it deserves to be noticed that, if the vesicated or ulcerated surface be covered with any coagulable lymph, there may be little or no effects produced by its application.—*La Lancette Francaise.*

SECALE CORNUTUM IN PARALYSIS OF THE BLADDER.

Dr. *Allier* has reported, in the number of the *Journal des Connaissances Medico-Chirurgicales* for November last, four cases of retention of urine, apparently cured by the use of the ergot of rye. In all of them the complaint occurred in elderly men, and had come on in consequence of the bladder having been allowed to become over-distended. In one case, the retention had continued for nearly three months before the employment of the ergot was commenced. The dose usually given was from one to two scruples of the powder, in the course of the twenty-four hours.

In all the patients the ergot induced, within twenty-four hours, a degree of irritation or trenesmus of the bladder, and pains in the hypogastric region. Its usually stupifying effects also, marked by general heaviness, dilatation of the pupils, &c. were obvious in all. Occasionally slight convulsive twitches in the lower extremities, were experienced by two of the invalids.

Dr. *Allier* reminds his readers that it is very necessary to attend to the quality of the ergot, and that it should never be reduced to powder till it is about to be used.

The stimulating effect of this medicine on the urinary bladder has frequently been noticed in women, to whom it may have been given to promote uterine pains. At the same time that it excites the action of the womb, it usually causes a very abundant secretion of the urine.—*Bulletin de Therapeutique.*

THERAPEUTICAL MEMORANDA.

Parsley in Gonorrhœa.

M. *Lallemand*, of Montpelier, has often administered the fresh juice of parsley (*Apium petro-selinum*) in acute gonorrhœa with marked good effects.

Its action seems to be in some degree *homoiopathic*, as it certainly acts not only as a diuretic, but also as an irritant on the urinary passages. Hence it often seems to aggravate at first the urethral symptoms; but speedily they abate and the discharge dries up.

In large doses it is apt to cause severe colic, and sometimes also troublesome

diarrhœa. The juice is prepared by triturating the stem and leaves of the fresh plant; its dose is at first a few drops, twice daliy; but this quantity must be quickly increased.

Ergot of Rye in Paralysis.

It is probable that this remedy acts more especially on the lower or lumbar portion of the spinal-marrow. In this way we can account for its utility in stimulating not only the uterus, but also the abdominal and other auxiliary detrusive muscles in expelling the fœtus, when labour-pains are tardy and weak.

It has been used, and with advantage, in certain cases of paraplegia: but it is quite impotent in hemiplegia.

M. *Petrequin* alludes to a case of paraplegia following a severe contusion of the back, in which the ergot appeared to effect a cure, after moxas, blisters, and a variety of internal remedies had been tried in vain.

The effects of the medicine are similar to those of strychnine; the patient usually experiencing a sense of pricking and formication in the palsied parts. The dose is at first from six to eight grains, to be gradually increased to two scruples or upwards.

An occasional turpentine enema may be advantageously used at the same time. M. *Petrequin* reminds his readers of the necessity of precaution in continuing the use of the ergot for a length of time. To obviate its *septic* tendency in certain constitutions, the patient should be kept on a nourishing animal diet.

M. *Ducros* observed gangrene of the heel in more than one case, where the ergot had been administered without due attention to the diet.

It may be proper to observe that the ergot requires to be kept in a well-stopped phial, and should be reduced to powder only at the time it is to be used.

How to apply Local Remedies to the diseased Uterus.

Dr. *Cliet* suggests the use of a simple instrument, which he has contrived for the above purpose, and which he has employed with much advantage in several cases of ulcers and other painful affections of the neck of the uterus. The *appendix cæci* of a sheep, prepared for the purpose, is affixed to one end of a caoutchouc canula, to the other end of which is attached a moveable *pavillon*. The gut is easily introduced empty by means of the canula, through which an injection can then be easily thrown up to the cervix uteri. Several punctures having previously been made into the *cul-de-sac* of the gut, the injection oozes slowly through these, and is thus applied directly to the diseased surface. The instrument may be retained in the vagina by means of a cincture round the body, and elastic side-tapes.

The injections, which M. *Cliet* has generally used, are solutions of the acetate of morphia, of extract of hemlock or of belladonna, and occasionally of the nitrate of silver, oxymuriate of mercury, &c. He recommends that they should be used for the space of one or two hours at a time, and if possible twice or thrice daily. It is needless to report his cases. The hint is a simple and probably a useful one.—*Journal des Connaiss. Med.*

Amenorrhœa quickly cured by the application of Leeches to the Cervix Uteri.

A lady, 35 years of age, was seized with a sudden suppression of the catamenia

in consequence of alarm from thieves having broken into her house. Severe pain in the region of the kidneys and general *malaise* were the consequence. She had been bled, and also several times purged without any good effects; and the various emmenagogue medicines in general use were then tried, but all in vain. For nearly 15 months, she had been almost constantly suffering: she then went to Paris for the sake of metropolitan advice. When she first consulted M. *Tauchon*, she needed the assistance of two friends to lead her into the room, and to keep her from falling forward: whenever she attempted to raise herself upright, she experienced the most violent suffering.

No signs of disease could on examination be detected in the uterus, rectum, or bladder. The kidneys, ovaries, and also the vertebral column and sacrum seemed to be quite healthy.

The diagnosis as to the cause of the patient's sufferings was therefore obscure; but M. *Tauchon* did not hesitate to direct his attention chiefly to the re-establishment of the menstrual secretion. With this view, he prescribed that ten leeches should be applied to the cervix uteri. An almost immediate relief was the consequence; and, within twelve hours, the catamenia began to flow. By the end of the week the patient was entirely freed from her long and protracted illness.—*La Lancette Francaise.*

Remarks.—We have little doubt that the practice, so successfully employed in the preceding case, might often be resorted to with excellent effects. But it is unnecessary to state that, in this country at least, the practice is quite inadmissible in the greater number of cases. An excellent substitute for it is the application of ten or twelve leeches, or, what is better, of the cupping-instruments over the sacrum. Diuretic aperient medicines should be used at the same time. Small repeated doses of the tartrate of antimony in a saline draught, to which some syrup of poppies or tincture of henbane may be added, will often be found of the greatest utility in dysmenorrhœa. When the pain is excessive, the tartrate should be given so as to induce decided nausea.—*Rev.*

On Menorrhagic Chlorosis: treatment with Steel, Ergot of Rye, &c.

M. *Trousseau*, well known by many excellent writings, very justly remarks, that medical men erroneously associate the idea of amenorrhœa with all cases of chlorosis. Now this is quite contrary to the results of actual experience. We daily see cases, where all the usual symptoms of the latter disease—the pallor and bloodlessness of the surface, the loss of muscular strength, the palpitations of the heart and large blood-vessels, and the *bruit de soufflet* heard over their *trajet*, the various forms of neuralgic suffering, &c.—are present, and yet the catamenia are, so far from being deficient, more abundant and more frequently returning than in health. Such patients are generally said to be *anæmic* and not *chlorotic;* but, if we examine the history of their complaints more minutely, we shall find reason to believe that they are in every respect similar to those of common or amenorrhœal chlorosis. There exists not merely a deficiency of blood, in consequence of repeated losses, but at the same time the process of sanguification appears to be seriously disturbed; and the consequence of such a disturbance is, that a more or less decided abnormal state of the circulating fluids has gradually been induced. That the state of the system which often accompanies menorrhagia, and which in our opinion is very similar to that in ordinary amenorrhœal chlorosis, is not simple anæmia, appears from the circumstance that mere quietude and the use of a nourishing regimen are very rarely adequate to its removal; whereas we well know that these means will generally

suffice for the reproduction of a healthy quantity of the circulating fluids. In other words, nature can often of itself cure *anæmia*, but very seldom can she cure *chlorosis*.

Among the exciting causes of chlorosis, hæmorrhages, whether spontaneous or artificial, have always been enumerated; and when once the chlorotic state is induced, the tendency to such hæmorrhages is often much increased—in consequence no doubt of the existing attenuated state of the circulating fluids. We thus arrive at this most important conclusion—

That excessive menstruation induces an attenuated and dissolved state of the blood—and again, that an attenuated and dissolved state of the blood is a frequent cause of excessive menstruation.

The mutual acting and re-acting of the local and of the constitutional disorders, the one upon the other, should be well attended to in the treatment of such cases.

The menorrhagic form of chlorosis is of much more frequent occurrence among middle-aged than among young females; and perhaps also among married than among single women.

With respect to the treatment of such cases, M. *Trousseau* remarks that many practitioners feel themselves embarrassed how to act so as to arrest the excessive menstruation on the one hand, and on the other hand to correct the chlorotic state of the system. They hesitate to prescribe the medicine which of all others is the most potent antidote to the latter disorder,—viz: steel—from believing that it is a direct emmenagogue, and that it will necessarily increase the existing tendency to menorrhagia.

But let us consider if in truth the preparations of steel, which are universally acknowledged to be by far the most efficient remedies against chlorosis, are direct emmenagogues, as is usually supposed. That the catamenia, which are very generally absent in the disease, return with returning health is known to all; but it may be asked, is this the *direct* result of the steel as a stimulus to the uterine functions; or is it not rather merely one of the consequences of the tone and vigour of the system being restored?

The primary effects of steel in cases of chlorosis are the *recoloration* of the tissues, the restitution of the muscular strength, the diminution of existing stomach complaints, and of palpitations of the heart, &c. It is often not until the general health has been quite restored for some time that the menstrual secretion is re-established. The restoration of the health has not been the consequence of the return of the catamenia; but the return of the catamenia has rather been one of the effects of the restoration of the general health. Were it otherwise, the earliest symptom of amendment should be the re-establishment of the menstrual secretion—but this is not the case.

It seems therefore to be quite a fallacy to regard steel as a direct emmenagogue or stimulant of the uterus. M. *Trousseau* goes so far as to assert that not only is it not an *emmenagogue*, but that it is a *hæmostatic*, or vascular astringent; and that its effect is rather to restrain than to increase the catamenia in those women who are quite regular.

These observations being premised, the reader will be at once prepared to assent to the propriety of the treatment recommended by M. *Trousseau* in cases of menorrhagic chlorosis—that form of the disease, which is accompanied with or has been preceded by, excessive menstruation. The preparations of steel, by restoring tone to the muscular fibre and plasticity to the circulating fluids, will be found not only to re-establish the general health, but at at the same time to diminish the tendency to menorrhagia.

As this however is not always the case, and as, it must be confessed, the menorrhagia seems in some instances even to be increased under the use of steel, it is well to be provided with other means, to which we may resort under such

circumstances. The *ergot of rye* is one of the best which we can employ.* From one to four scruples of the recent powder may be given in twenty-four hours. M. *Trousseau* recommends that a dose be given at bed-time; as he is of opinion that there is a greater tendency in all uterine hæmorrhages to be increased during the night, than during the day.

He assures us that he has succeeded, in numerous instances, in preventing the expected return of the menorrhagia by administering the *ergot* the day previously. During the intervals between the menstrual periods, we should recur to the use of steel, as long as any of the symptoms of chlorosis continue.—*Journal des Connaiss. Med. Chirurg.*

GOOD METHOD OF ADMINISTERING IRON.

Dr. *Meurer* of Dresden has long been in the habit of recommending to his patients the following method of taking a chalybeate in an effervescing draught.

℞. Ferri sulph. cryst..... 3ss.
Sacchari albi..... 3j.
Misce et divide in pulv. xij.

℞. Natri carbon..... 3ss.
Sacchari albi..... 3j.
Misce et divide in pulv. xij.

One powder from each packet is to be dissolved separately, and the solutions mixed together. About a grain or so of the fresh precipitated subcarbonate of iron, mixed with a small proportion of sulphate, and of carbonate of soda, is thus taken in an agreeable and useful form.—*Caspar's Wochenscrift.*

There is a well known formula for steel pills, which have acquired a high celebrity in Paris for the cure of chlorosis and its dependent affections. They often pass by the name of *Bland's pills*. M. *Bland*, the chief physician of the hospital de Beaucaire, having first introduced them to the notice of his countrymen. He has recently published an article in the *Revue Medicale*, wherein he has adduced a multitude of cases illustrative of the curative quality of his pills.

They are to be prepared as follows:

Take of gum *adragante* (tragacanth?) six grains, and a drachm of water, so as to form a thick mucilage. To this mucilage add half an ounce of fresh pulverised sulphate of iron, and when this is perfectly and uniformly mixed, add the same quantity of subcarbonate of potash, and blend all well together, so as to form an even mass. The mass acquires at first a yellowish-green colour, and then becomes of a deeper green, acquiring at the same time a soft consistence. The mass is to be divided into forty-eight pills, of which from one to three are to be taken daily.

M. *Bland* states that, if his directions are faithfully followed in the preparation of the pills, the mass retains for several days, a soft consistence: it may however be divided into pills, either early or late, as the physician may require

---

STYPTIC ACTION OF CREOSOTE.

Drs. *Muller* and *Reiter* have lately instituted a series of experiments for the purpose of ascertaining the styptic properties of creosote, when applied directly

---

* The activity of this medicine is found to vary exceedingly. It should be fresh, and reduced to powder only at the time of use.

to a bleeding surface. The hæmorrhage from the division of the crural vein in dogs was found to be arrested by the application of a plug of cotton, which had been well moistened in the creosote.

In the case of divided or wounded arteries, it was necessary to keep up a certain degree of compression for some time, in order that the creosote might be able to act upon their parietes. Upon examining the cut arteries afterwards, they were always found to be quite closed or obliterated at the part, exhibiting outwardly an umbilical depression, which corresponded with a conical-shaped coagulum within: the coats of the vessel were usually inflamed for the extent of an inch or so.

The creosote was found to be a more decided and secure *hæmostatic* remedy than the far-famed aqua Binelli. *Creosoted water* sufficed to stop the bleeding from an oozing surface, when no large vessels had been divided. When creosote was injected into veins, the blood was found to be instantaneously coagulated.

Professor *Schneider*, of Munich, had recently an apportunity of using creosote as a styptic in one of his patients. An old man was subject to most profuse hæmorrhage from the mouth. He had lost several pounds of blood, and a variety of means had been ineffectually tried to arrest the hæmorrhage.

M. *Schneider* made him fill his mouth with water charged with creosote (*eau creosotée*); after the third mouthful, the bleeding ceased, and did not afterwards return.—*Schmidt's Jahrbucher.*

FORMULA FOR THE INTERNAL ADMINISTRATION OF TURPENTINE.

℞. Olei terebinth..... .... ʒiss—ij.
Magnesiæ carbonat.... ʒj—tere simel et adde,
Aquæ menth. sat..... ʒv.
Syrupi limonum ..... ʒij.
Spir. lavend. comp..... ʒij.
Misce, sumatur pars quarta ter die.—*Ibid.*

UTILITY OF COPAIBA BALSAM IN CHRONIC BRONCHITIS.

Every physician knows well, how exceedingly obstinate many cases of this disease are to the remedies usually employed, such as squills, various narcotic and anodyne medicines, blisters, and so forth.

Dr. *Phillipart*, of Tournay, has of late years been trying the Balsam of Copaiba in such cases: and he reports most favourably of its excellent effects.

He does not claim any merit to himself as the discoverer of its virtues. It seems from his statement that the balsam was recommended in chronic catarrhs and such like ailments so far back as the beginning of last century, by old *Fuller* of London in his *Pharmacopœia Extemporanea*, 1701.

The late Dr. *Armstrong* too (vide Ed. Med. and Surgical Journal, 1818) and Dr. *Laroche*, of Philadelphia (North American Med. Journal, 1825), have published memoirs on the same subject.

A man, between 50 and 60 years of age, had been distressed with chronic bronchitis for upwards of six months, when he first consulted Dr. *Phillipart*. The cough and difficulty of breathing were most harassing; the sputa had become purulent; there was a constant feverish excitement of the system, and his attendants were apprehensive that regular hectic was setting in, as of late night perspirations and occasional attacks of diarrhœa had distressed him. In consequence of these symptoms, and of the patient's great emaciation and loss

of strength, Dr. P. was at first inclined to form an unfavourable prognosis as to the results of the case.

He recommended him to begin the use of the copaiba balsam immediately (20 grains during the course of the day), to continue the decoction of the lichen islandicus, which he had been taking for some time, and to keep a blistered surface on his chest open with savine ointment. This course of treatment was persevered in for several weeks,—the dose of the balsam having been gradually raised to 40 grains, and the decoction of cinchona having been added to that of the lichen—and the patient was ultimately restored to perfect health.

M. *Phillipart* adduces several other cases in proof of the decided utility of copaiba balsam in chronic bronchitis; more especially in those cases where the complaint is accompanied with profuse expectoration, and all the symptoms of phlogistic action have passed away.

This balsam—and indeed most of the class of medicines to which it belongs—seems to exert a marked influence on the mucous structures of the body. In certain cases of obstinate diarrhœa and protracted dysentery, it has been used with excellent effects, and has succeeded when all the ordinary medicines in such disorders have totally failed.—*Bulletin Medical Belge.*

USEFUL APPLICATION TO CHILBLAINS.

The following application is strongly recommended to relieve this troublesome affection.

Take of Balsam of fioraventi.....	ʒij.
Solution of acetate of lead	ʒiij.
Olive oil	ʒiij.
Hydrochloric acid	ʒj.

Shake them well together.

The affected parts are to be rubbed once or twice a day with this embrocation; and a piece of silk paper, moistened with it, should be kept constantly applied. The strength of the embrocation may be easily increased or diminished by varying the quantity of olive oil used in preparing it. When the chilblained skin has become chapped and ulcerated, the embrocation is to be applied only to the surrounding skin, and the little wounds should be dressed with laudanised cerate, to which we may sometimes add with advantage a portion of tincture of benzoin.—*Bulletin General de Therapeutique.*

TREATMENT OF NÆVI WITH CAUSTIC.

The plan of treating these cutaneous growths by the application of caustic potash was much recommended by Mr. *Wardrop* of London some years ago, and has been extensively used by M. *Roux*, now the leading surgeon in the French metropolis. The chief disadvantage attending it is the tardiness of the cure; several weeks being usually necessary for its completion. The following is a case in which it was successfully adopted by M. *Allier*. An infant, eight months old, had a nævus, which was about the breadth of a strawberry, on the lower part of the neck. It had lately indicated a decided tendency to enlarge itself. A piece of diachylon plaster, perforated with several holes, was laid upon the tumor, and then the *pate caustique de Vienne* (potassa cum calce) was applied to each of the little openings, so as to cause several superficial cauterisations. The part was then covered with a piece of plaister. This treatment was repeated at the end of the week, the caustic being applied this time not to the little ulcerated

surfaces, but to the sound and intact portion of the nævus. At the end of a fortnight the swelling had shrunk considerably, and had lost its deep red colour. The application of the caustic was renewed, at intervals of eight or ten days, for other three times; and then the little ulcers were allowed to heal up. The cure was complete.

M. *Allier* alludes to two cases, where the *nævi* underwent a spontaneous cure, no remedies having been applied to them. Nature had probably set up a slight inflammation in the part, and this had been followed by a complete consolidation of the vascular tissue, of which these tumors consist.—*Journal des Connaiss. Med.*

Remarks. We have several times made use of the potassa fusa, applied very freely to the surface, in the treatment of nævi materni. The practice usually succeeds perfectly well; but it requires a considerable time to effect a cure. The strong nitric acid is on the whole the best application; it is more easily laid on, and its action is more quickly destructive.—(*Rev.*)

RESEARCHES ON KIESTEINE IN THE URINE OF PREGNANT WOMEN.

Some years ago M. *Nauche* communicated to the Society of Practical Medicine a memoir, in which he endeavoured to shew that the urine in pregnant women contains a peculiar substance,—which separates by repose and forms a pellicle on its surface, and to which he gave the name of *kiesteine*—and that thus a valuable diagnostic sign may be derived by the obstetrical physician. But little importance has hitherto been attached to this alleged discovery of M. *Nauche*; and we are not aware of any accurate series of experiments which have been instituted with the view of determining the question, till M. *Tanchon* of Paris, recently published his researches on the subject in the *Lancette Francaise*.

He examined the urine of twenty-five pregnant women; and in every case he detected the presence of *kiesteine*. The following is the description he gives of the changes which the urine during pregnancy exhibits, and of the characters by which its peculiar ingredient may be recognized.

The urine of a pregnant woman, collected in the morning, is usually of a pale yellow colour and slightly milky in appearance: it is not coagulable by heat, or by any of the tests which indicate the presence of albumen. Left to itself and exposed to the air after the first day, there begins to appear suspended in it a cottony-looking cloud, and, at the same time, a flocculent whitish matter is deposited at the bottom of the fluid. These phenomena are not of constant occurrence, and moreover healthy urine sometimes exhibits analogous phenomena.

From the second to the sixth day, we perceive small opaque bodies rise from the bottom to the top of the fluid; these gradually collect together so as to form a layer which covers the surface: this is the *kiesteine*. It is of a whitish or opaline colour, and may be very aptly compared to the layer of greasy matter which covers the surface of fat broth, when it has been allowed to cool. Examined by the microscope, it exhibits the appearance of a gelatinous mass, which has no determinate form. Sometimes small cubical crystals can be perceived in it, when it has become stale.

The *kiesteine* continues in the state we have now described, for three or four days; the urine then becomes muddy, and minute opaque bodies detach themselves from the surface and settle at the bottom of the vessel: the pellicle thus becomes soon destroyed.

The characteristic feature therefore of the urine during pregnancy consists in the presence of *kiesteine*. It deserves however to be noticed, that the urine, in some cases of extreme phthisis pulmonalis, and also of vesical catarrh, will be found to exhibit on its surface a layer or stratum which is not unlike to that now

described as peculiar to the state of pregnancy. But with proper attention we may easily avoid this mistake. The stratum, in the cases alluded to does not appear so quickly on the surface of the urine as the *kiesteine* does; and also, instead of disappearing, as it is found to do, in the course of a few days, it (the former) goes on increasing in thickness, and ultimately becomes converted into a mass of mouldiness.

Of twenty-five cases, in which M. *Tanchon* detected the presence of *kiesteine*, in the urine, seventeen occurred in women who were pregnant from four to nine months, four in women who had not quickened, and who considered themselves as labouring under diseases of the womb, and the remaining four in patients who had been under treatment for casual complaints—one for sciatica at the Hôtel Dieu; another for ascites in the city; a third for an ulcer in the neck at La Pitié; and the last had been cauterised twice a week for a pretended disease of the uterus. In none of these cases had the existence of pregnancy been suspected; although in every one of them the fact was soon placed beyond doubt—*La Lancette Francaise.*

On the Changes in the Blood in Inflammatory and Typhoid Diseases

Andral has with great justice remarked in his Precis d'Anatomie Pathologique that "the consequence of every alteration of the solids must necessarily be an alteration of the blood, just as every modification of the blood must be followed by some modification of the solids.

Admitting then the truth of this important pathological axiom, it is evident that in any disease, *tant soit peu prononcée*, the organ, which appears to be affected, is not the only one that is disordered: since the whole economy must necessarily suffer from the disturbance of any of its parts. This doctrine has of late years been gradually gaining ground; and very few even of the followers of *Broussais* refuse now to admit the existence of an alteration in the blood itself as a necessary element—superadded to, if not actually induced by the *gastro-enterite*—in the ætiology of all typhoid fevers. In some diseases,—such as scurvy, cholera, glanders, eruptive fevers, &c.—the *hæmatic* change is the primary and essential phenomenon, to which all their symptoms are referable, as to their exciting cause. Even in respect to the extensive class of the phlegmasiæ, the opinion held by Sydenham and most of the older physicians—"that they all proceed from inflammation of the blood itself, causing a deposition of the morbific matter upon the lungs, brains, joints, or other organ most affected"—has been adopted by some able cotemporary physicians, who hold that the disease in the solids is always preceded by that of the circulating fluids. Other physicians maintain the converse of this proposition, and contend that the inflammatory state of the blood is always preceded by the phlogosis of the solids. The question is still undecided. But, be this as it may, no one will hesitate to admit that the state of the circulating fluid affords one of the surest and most constant indications of the existence of any active inflammation. Let us now endeavor to ascertain, more exactly than has been done hitherto, the nature of those changes which the blood exhibits during this morbid process.

In perfect health, the globules of the blood seem to have a much more feeble attraction for each other, than when the inflammatory, or phlogistic, diathesis is present. Compare the blood drawn from a person in health with that from a patient affected with an active phlegmasia. In the former, the clot or coagulum is usually more bulky, and is at the same time much less firm or resisting to the impression of the finger, than in the latter. Inflammation seems to modify all the characters of the blood, by augmenting the force of attraction between its

molecules; the fibrinous globules, which in a healthy state are not very closely drawn together, but are separated somewhat by the serosity and enveloped with the colouring matter, are then powerfully attracted towards each other; and thus the coagulum, from the squeezing out, as it were, from its pores of all the serum and much of the colouring matter, acquires that firm, dense, and puckered-on-the-surface appearance which is so conspicuous in highly inflamed blood.

The lower surface of such a coagulum always presents, it is well known, a layer of soft, sometimes almost gelatinous, and deep red coloured bloody matter: this is owing to the settling down of the greater quantity of the colouring globules to the bottom. Hence it will be generally found that the clot of inflamed blood will be more resisting on its upper surface, and less resisting on its lower one, than healthy blood. To this is to be added that there is usually a quantity of serum in the former than in the latter—in consequence of all the serosity having been, so to speak, squeezed out from the interstices of the fibrinous globules in the one case. The character of the clot therefore affords most valuable signs to direct the intelligent physician in his diagnosis and treatment of many diseases.

Whenever this is unusually firm, and tough or resisting to the impression of the finger, whether there be any buffy coat on its surface or not, we may be assured that an inflammatory condition of the system is present, and that our patient's case requires an antiphlogistic treatment. This simple rule therefore may afford a useful guide to the practitioner in treating certain cases of inflammation, which are accompanied with symptoms of such prostration as might seem quite to contra-indicate the employment of any lowering remedies. We should trust less to the mere existence, or not, of a buffy coat on the surface, than to the general consistence or firmness of the entire coagulum. The more active the inflammation, the firmer and tougher will the clot be found; and *vice versa*. We are of opinion that M. *Piorry*, in his ingenious discourse on *hæmitis* or inflammation of the blood, is in error when he insinuates that this state is invariably indicated by the formation of a buffy coat on its surface, after it has been allowed to rest for some time. According to our view of the case, the general increase in the aggregation of the particles of the clot is a safer and more exact test of the condition referred to.

This increased force of aggregation of the fibrinous globules would seem, in some cases, to overcome during life its antagonist power—which keeps the blood fluid in the vessels. In this manner the formation of coagula within the cavities of the heart—the presence of which during the progress of some cases of pleuro-pneumonia has been repeatedly discovered by means of auscultation by M. *Bouillaud*—is, often at least, to be accounted for. M. *Raciborski* states that he has on several occasions verified the truth of this opinion, and that he has observed that, when in such cases the plasticity of the blood is diminished by bloodletting, &c., the abnormal sounds of the heart gradually abate and disappear.

So much for the usual state of the blood in *inflammatory* or *phlogistic diseases*. We now proceed to examine the condition of this vital fluid in *typhoid fevers*.

M. *Raciborski* has kept detailed notes of the state of the blood drawn in cases of typhoid fever, 111 times by venæsection, and 68 times by the cupping-glasses. In 46 of the 111 bleedings from the arm, the blood exhibited no buffy coat (*couenne*), or only a few soft and semi-transparent patches of it. The coagula, in all these cases, were more or less soft, but presented considerable variety in point of consistence; some being firm enough to bear half their own weight, while others gave way to the pressure of the finger in attempting to take them up. The serum was always in small quantity, and somewhat opaque or troubled; it was never so clear as the serum of blood drawn during an inflammatory disease.

In 18 of other 27 venæsections, the blood drawn did exhibit a buffy surface; but in almost all these cases, the buff was thin, semi-transparent, and gelatinous.

We now come to state the appearance of the blood in the remaining cases, in all of which the typhoid fever was complicated with symptoms denoting inflammation of the lungs, throat, head, &c. In five out of twelve cases, in which the fever was accompanied with bronchitis, the blood drawn presented no buffy coat, and its coagulum was soft and easily lacerable. In all these cases the inflammatory affection was slight and limited.

In other 24 venæsections, practised on seven patients, the blood exhibited a buffy coat 17 times; but in no case was it thick, tough, and leathery, as we see it in simple active inflammation.

From all his observations M. *Raciborski* concludes that, in typhoid fevers, even when they are complicated with an inflammatory affection of some of the viscera, the blood very rarely exhibits a genuine buffy coat, such as we observe in *inflammations franches.*

We have already stated that the consistence of the coagulum, subjacent to the buffy coat, is always inversely proportionate to the thickness and toughness of this coat;—the thicker and denser the buffy coat is, the softer and more yielding is the subjacent coaguium. The reason of this phenomenon is obvious: when the buffy coat is very thick, the greater part of the fibrinous portion of the blood has separated from the colouring globules, and these latter, in consequence of their greater specific gravity, sink to the bottom.

Now the blood drawn in typhoid fever never exhibits so thick and tough a buff on the surface of the clot, nor so soft and gelatinous a consistence at its base, as that drawn in an active inflammation. The transparency of the serum, being in general proportionate to the firmness of the coagulum, is seldom or never so great in the former as in the latter case.

These various phenomena are all attributable to the increased force of aggregation or attraction between the molecules of the blood in the one case, and to the diminished force of the same power in the other.—*Gazette Medicale.*

CASE OF COAGULATION OF THE BLOOD IN THE VESSELS, WITH REMARKS BY M. ANDRAL.

A woman, 59 years of age, and mother of six children, was admitted into the Hôpital de la Charité, under the care of M. *Andral*, in December last, with symptoms which were supposed to indicate *cancer du pylore et du foie.* She suffered from sharp pains in the epigastrium, especially after taking food, from frequent vomiting, and all the usual distress of a very aggravated dyspepsia. These complaints were of three or four months' duration. Within the last two months, a firm, irregular, and granulated tumor might be discovered in the epigastric and right hypochondriac regions. It was observed that the basilar vein on the left arm formed a hard resisting cord. When pressed upon by the finger, a person could distinctly feel that there were several coagula in it, separable the one from the other, and moveable about within its cavity. The pulse was rapid and small.

The patient was ordered to be bled to a small amount from the left arm. An incision was made in the basilar vein; and a solid, whitish, perfectly organised coagulum was drawn out from the wound in the vessel. None of the other veins of the arms exhibited any unusual appearance.

The patient became dropsical soon after her admission into the hospital, and died in the last week of the year.

Dissection —The left basilar vein being opened along its whole extent, the coagulum, which occupied its cavity, was found to have no point of adhesion

to any part of the vessel's sides. It was firm and so uniformly consistent, that it could be extracted *en un seul cordon* from the vein.

Similar concretions were found in not only the other veins of the left arm, but also in those of both lower limbs, and of the feet. All these vessels, the deep-seated as well as the superficial, were distended with cylindrical fibrinous coagula, of a deep red colour, and which were so dense and firm that they could be readiiy taken out in one piece. On examining these coagula minutely, they were found to be composed of concentric layers of fibrine, laid one upon the other, the internal being more deeply coloured than the external ones. In the coagulum, which occupied the left femoral vein, the fibrine had at several points become softened, and, as it were, sanious—resembling somewhat softened encephaloid matter: the parietes of the vein however at these points did not exhibit any marks of morbid change.

The aorta, as well as the vena cava, contained coagulated blood. The semilunar valves at the mouth of the former vessel were beginning to undergo a cartilaginous transformation.

The liver was hypertrophied, and on its convex surface exhibited numerous irregular cancérous masses, separated the one from the other by indurated portions of the hepatic parenchyma. The pylorus too had passed into the state of scirrhous degeneration.

Remarks.—The case, which we have now briefly reported, affords most unquestionable evidence that the blood will sometimes undergo a spontaneous coagulation within the vessels during life. What was the cause of this change? It has been usually attributed to the blood being too rich and crassid, from being charged with an excess of fibrine in its constitution. But how can we suppose that such a state should exist in an emaciated patient, who was labouring under an organic disease, and that too of the digestive organs? We are aware indeed that, in some cases, where a patient has been repeatedly bled, the blood has continued to the last to exhibit a decided buffy coat—a state which is commonly believed to indicate an excess in the quantity of its fibrine—but certainly in the last stages of any organic disease it is usually thin and serous. In such a case as the present, there may possibly have been an absorption and admixture of cancerous matter with the circulating fluid, and a consequent morbid affection of the parietes of the vessels. The instances of spontaneous phlebitis coming on indepedently of all extraneous causes are of occasional occurrence. But the present case cannot well be regarded as of this nature. The patient, it is true, had felt some uneasiness along the course of the basilar vein, and shortly afterwards the vessel was found to be hard and resisting to the finger like a solid cord. It is to be remembered also that none of the veins, in which coagula were discovered, exhibited on dissection any well-marked traces of inflammation of their internal tunic.

M. *Velpeau* and other pathologists have reported several interesting cases of cancerous disease, in which *cette matiere morbide* had been absorbed into, and become mixed with, the torrent of the circulation. It does certainly appear to us to be the most probable explanation of the coagulation of the venous blood in the case above reported, to suppose that the circulating fluid had become extensively altered, and that this alteration was owing, at least in some measure, to the absorption and admixture of the cancerous matter.—*Lancette Francaise.*

GLANDERS IN THE HUMAN SUBJECT.

M. *Andral* communicated the following report at a recent meeting of the Royal Academy of Medicine.

An ostler, addicted to drinking, had for several months slept in a small stable, where there were usually some diseased horses, which it was his duty to attend to. Two of the horses were glandered, and have been within the last few weeks slaughtered at Montfaucon. Another ostler, who also slept in the stable, died very suddenly; but of what disease it is not known. Immediately after his death, the subject of the present report was taken ill, on the 11th of January.

The first symptoms of his illness were such as usually usher in an acute malady, viz. lassitude, pains in the limbs, head-ache, prostration, &c. This is the first stage, or that of the invasion of the disease. The second is characterised by an increase in the severity of the symptoms now mentioned, and by an eruption on the skin, which we shall now describe. (It was at this period of the disease that the patient was admitted into the Hôpital de la Charité.)

At first sight the case was regarded as one of pustular erysipelas; the face and forehead being much swollen, puffy, red, and covered with papulæ. On further examination, however, it was found that similar pustules of a livid colour were scattered over the limbs, the cavity of the mouth, and the nasal passages: five or six abscesses co-existed with the eruption upon the upper and lower extremities. There was no outward discharge from the nostrils; but it was discovered that a bloody puriform matter flowed back of the nostrils into the throat. The breathing became naturally more and more distressed; coma supervened, and the patient rapidly sunk.

Dissection.—The following lesions—which present a striking resemblance to those in other five cases, which have been noticed in Paris within the last two years—were found by M. *Andral.*

The surface of the body exhibited numerous gangrenous ulcerations wherever any pustules had appeared. Several abscesses and extensive purulent sinuses were found in the muscles of the limbs; and these extended down, in some places, to the bones themselves. The mucous membrane of the intestinal canal was spotted with numerous petechiæ and patches of ecchymosis; that of the nasal passages was ulcerated, gangrenous, and infiltrated with purulent matter; the *ossa spongiosa* were denuded at several points. The *velum palata* also was partially gangrenous and infiltrated: these morbid changes extended down along the pharynx and larynx. The lungs were affected with lobular pneumonia, as they usually are in such cases; and at the summit of the right upper lobe was an unhealthy fætid abscess.

In conclusion, it may be stated that some of the matter from the nostrils and of the discharge from the pustules was inoculated upon an ass, and that the animal was speedily affected with the nasal flux peculiar to acute glanders.—*Memoirs de l'Academie.*

OBSTRUCTION OF THE RECTUM—DEATH OF TALMA.

M. *Amussat*, whose report of the last illness and death of M. *Broussais* we have given some account of in a former page of this present number, has published a long paper on obstructions of the rectum, wherein he has more particularly detailed his method of treatment and adverted to several cases from his own practice as well as from that of other surgical writers.

Among these he alludes to the case of the late celebrated French tragedian *Talma*, who died in 1826, of this distressing malady. We are induced to submit to some of the more interesting particulars of this case to our readers, as they seem to us to confirm the truth of those remarks which are appended to the history of *Broussais'* illness.

Talma, although endowed with a very vigorous and healthy constitution, had been long subject to occasional irregularities of the stomach and bowels. He was often annoyed with excessive constipation; for the relief of which he was

in the habit of having very frequent recourse to the use of enemata. As he advanced in life, he quite *abusa des lavements*—repeating them two or three times a-day. In 1825—his age being then 62 years—all his ailments had increased; for not only had the bowels become more and more irregular in their action, but the dejections were now frequently observed by the patient to be streaked with blood, and he experienced considerable tenesmus when he made an effort to pass them. During the Winter of this year, he made use, at the recommendation of a distinguished physician, of enemata of salt and water—for the purpose, partly, of relieving symptoms of cerebral congestion, which of late had made their appearance. This treatment, which was persevered in for some time, certainly aggravated the irritation of the rectum.

In May of the following year, *Talma* consulted M. *Biett*. He mentioned that he was much distressed with tenesmus, and that often, when he thought that he had voided a copious alvine evacuation, he found that the fæces were very scanty and of a size not larger than those of an infant, and that they were also accompanied occasionally with a mucous and bloody discharge. The lavements did not pass easily up the bowel; and they returned almost as quickly as they were administered.

In June, *Talma* became seriously worse, in consequence of some irregularity in his diet; the bowels were now so obstinately confined that but very little fæculent matter passed, even after the free use of the enemata. M. *Biett*, suspecting that there was an obstruction at some part of the bowel, called MM. *Dupuytren*, *Breschet*, *Marc*, and *Lebreton* into consultation. It was found, on passing an œsophageal bougie up the rectum, that the instrument met with an impediment about six or seven inches from the anus. Purgatives were administered by the mouth and in the form of enemata, and a scanty evacuation of unformed fæces was at length obtained. The illustrious patient seems to have had little control over his appetite; for, in the course of a week or two afterwards his state was more distressing than ever, in consequence of his having taken improper food; and, in addition to his other maladies, anasarca of the lower limbs now came on. In spite of the repeated use of purgative medicines, of the sulphurous waters of Enghien, and the application of galvanism, no satisfactory alvine evacuation could be procured; nothing but gas and unformed fætid matter were discharged.

M. *Dupuytren* again tried to introduce an œsophageal bougie, but he could not pass it higher than about six inches up the gut. The state of the patient rapidly became worse, and he died on the 18th of August.

Dissection.—On laying open the cavity of the abdomen, a quantity of dark-coloured fluid was found effused in the pelvis. The sigmoid flexure of the colon was excessively distended; and on its anterior surface there was a perforation, through which the contents of the bowel had escaped. The rectum, at its commencement or junction with the left colon, was contracted and indurated for about two inches in extent; its diameter there did not exceed three or four lines at most. Below this point, the gut was as small in volume as it is usually in a young child.

In reference to *Talma's* case, M. *Amussat* remarks that the contraction existed exactly at that point where the bowel is naturally the narrowest—at the angle of union of the sigmoid flexure with the rectum. He is of opinion that the excessive use of lavements had greatly aggravated the disorder, which doubtless had been coming on long before its existence was suspected.

He alludes to the striking similitude, as to corporeal constitution as well as to mental character and endowments, in MM. *Talma* and *Broussais*.

Both were strong athletic men, of hot impetuous passions, and lofty energetic intellects.—*Gazette Medicale.*

Before dismissing this case, we may again advert to what we deem a serious

error in the treatment of such a disease as structure of the rectum, especially when the point of contraction is high up in the bowel. To expect to remove this disease—a disease too which is generally dependant upon a serious organic change in the tissues of the gut—by artificially dilating it with bougies and burning it with caustic, must surely be deprecated by all prudent surgeons. There are certain maladies, more especially when these occur in the latter years of life and have for a length of time been establishing themselves in the system, which, although not irremediable or susceptible of partial relief, the wise practitioner can never hope to remove altogether. Among these we should certainly regard obstruction of the rectum arising from an indurated and thickened state of its parietes, even when this morbid state is not connected with cancerous disease. The two cases of Talma and of Broussais—more especially that of the latter—appear to us to bear strong testimony to the truth of this advice.

The symptoms in both were assuredly much aggravated, and the progress of the disease was rapidly advanced by the irritation, which was induced by the use of the local remedies. But we shall not dwell on this subject any longer. One word however upon the operation recommended by M. *Amussat* in extreme cases of stricture of the rectum—the establishment of an artificial anus.

It appears that we were mistaken in asserting that this operation had not been practised by any British surgeons. M. *Amussat* refers to three such cases; one reported in the Edin. Med. and Surg. Journal for 1825, by Dr. Martland, another by Mr. Freer of Birmingham, and a third by Dr. Pring; vide London Med. and Physical Journal for 1821. In the first and last of these cases the operation, it is said, succeeded. It would seem however that our view as to the propriety of such an operation coincides with that of most of the Paris surgeons; for M. *Amussat* states that he has several times proposed to perform it when the rectum was *bouché completement* but that he has never been *seconde par la majorite des consultants.*—(*Rev.*)

AUTOPLASTY AFTER THE EXCISION OF CANCEROUS TUMORS.

M. Phillips, a surgeon at Liege in Belgium, has addressed a letter to Professor Dieffenbach of Berlin, with the view of shewing "what important changes diseased tissues frequently undergo by being brought into contact with healthy ones, and how this important therapeutic principle may be taken advantage of, for the purpose of preventing the return of cancerous and other malignant tumors in parts from which such tumors have been extirpated."

The Professor himself has alluded, in one of his published lectures, to the practical application of the above principle; and in 1835, Dr. *Martinet* de la Creuse, published in the *Gazette Medicale*, a memoir on Autoplasty as a therapeutic or curative means, and narrated at the same time the particulars of four cases in illustration; two of these were examples of cancer in the face, and, in the other two, the mamma was the seat of the disease.

The attention of M. Phillips had been much excited by this paper; and he therefore resolved to test the advantages of the practice for himself. His first experiments were performed on dogs; but as we cannot well admit that the tumors in these animals, which M. Phillips designates cancerous, were really of a malignant nature, it is quite unnecessary to detail them. We shall therefore only allude to the results of certain operations on the human subject.

CASE 1.—*Excision of a Cancerous Mamma; return of the Disease; Second Excision, and Transposition of a Flap of Healthy Skin to fill up the Wound.* Mad. D——, 54 years of age, submitted to the extirpation of the left mamma, which was affected with an open cancer. As a large portion of the integument

required to be removed, the edges could not be brought together, and the wound was therefore allowed to suppurate. *This*, says M. Phillips, *was a great error which I committed.** A month after the operation, the wound was entirely cicatrised. Within a twelvemonth however, a fresh tumor, which was evidently of a malignant character, made its appearance in the site of the cicatrix. M. Phillips resolved, after excising this new tumor, to transplant a portion of healthy integument to fill up the wound. He therefore dissected a flap, of the dimensions required, from off the adjoining integuments, and transported it to the place which the tumor had occupied, (*le lambeau, que je devais emprunter sur un coté de la poitrine, fut deplace et transporté sur le leu où la tumeur avait vecu ;*) it was secured in its place by fourteen points of suture.† The wound was then dressed with compresses wetted with cold water.

Next day one of the points of suture was removed, for the purpose of giving discharge to some fluid in the wound; and in two days afterwards all the other stitches were withdrawn. Already the flap was found to be adhering in all its extent; the immediate union was quite complete, and unattended with any suppuration. The cancer has not returned. (The date of the operation is not given.—*Rev.*)

CASE 2. *Cancer of the lower Lip; Excision of the Tumor, and Transplantation of a portion of Healthy Skin; Cure.*

Although the greater portion of the lip was involved in the morbid degeneration, its mucous lining was found to be quite exempt from the disease. M. Phillips therefore determined to save this, by dissecting from off it the indurated integuments and muscular substance, and leaving it for the purpose of adhering to the new flap which he proposed to *graft* upon the spot.

This flap was obtained from the integuments under the jaw, and, being made to correspond with the size of the wound of the lip, was fixed in its new place by means of several sutures, the mucous lining being brought or turned over its upper edge, and secured in this position by six points of the interrupted suture.

On the fifth day after the operation, the stitches were removed; and it was then found that the flap had adhered at every point, except where its pedicle was attached.

The wound under the chin, from which the flap had been removed, was healed at the end of the third week.

M. Phillips, in the treatment of this, as well as of the preceding, case, had employed very active antiphlogistic means after the operation. The flap had become tumefied, red, and shining, as if it had been coated with varnish; M. Phillips scarified it in a number of places, and then applied cold wetted compresses to it.

In another case, in which the operation of Rhinoplasty was performed, the new nose remained for two hours after the operation quite pale, cold, and insensible; the application however of iced water was still continued, and the colour and warmth of the flap began gradually to return. At the end of six hours, it had become considerably swollen, and heated; a great number of leeches was immediately applied, and the oozing from the bites was encouraged. Next day, a good many scarifications were made with the lancet; and these were repeated *de deux en deux heures*. In the afternoon the patient was bled freely from the arm, and the cold water was kept constantly applied to the head and face. On

---

* M. Phillips seems to recommend the practice, so much followed by *Dieffenbach*, of making one or two lateral incisions in the adjacent skin to permit the extension and approximation of the edges of the wound.

† We should not omit to state that the bleeding from the divided vessels had been arrested by torsion, and that no ligatures had been applied.

the third day, upwards of thirty of the stitches (forty had been used) were withdrawn, and the new nose was found everywhere adhering.

A smart attack of erysipelas of the face came on at this time; but fortunately the re-adoption of very active antiphlogistic means rapidly arrested its course; and eventually the patient jouit de tous les avantages d'un organe dont il etait privé depuis dix années.—*Bul Med. Belge.*

ON THE APPARENT LENGTHENING OR SHORTENING OF THE LIMB IN INJURIES AND DISEASES OF THE HIP.

M. Sedillot, one of the surgeons of the Val-de-Grace Hospital at Paris, has published a very valuable practical paper on the difficulties of diagnosis in some cases of injury about the hip-joint, which we now propose to condense for the benefit of our readers.

"He remarks—"the deviations of the pelvis, so common in diseases of the hip-joint, have been studied with great care of late years; and it is now admitted by all surgeons, that the *apparent* elongation of the limb on the affected side is generally owing to this cause (pelvic deviation), and not, as was formerly supposed, to a partial dislodgment of the head of the bone from its socket.

It has been also ascertained that the deviation is not always from above downwards, but is occasionally from below upwards; in which latter case the limb, instead of seeming to be elongated, appears to be shortened; although, in truth, its real length is not altered.

The attention of surgeons having been thus directed to these points, a great improvement in the history of hip-joint disease has been introduced of recent years; but the pelvic deviations, caused by a sudden blow or contusion upon the haunch, have been rather neglected; although they deserve particular consideration, seeing that such accidents are exceedingly apt to be mistaken either for fracture of the pelvis or of the cervix femoris, or for some dislocation of the hip-joint—mistakes which might prove most serious both to patient and surgeon.

The following case may be adduced in proof.

A young robust man fell upon his right haunch and hip, while coming down a flight of stairs: his right foot, being caught under the balustrade, prevented him from slipping down the stairs. He heard a sharp crack at the time, and he thought that he must have broken his limb. He rose however without assistance, but he could not rest the foot of the injured side upon the ground. A surgeon, who was immediately called to his assistance, finding that the limb was shortened and could not be moved but with difficulty, considered the case as one of dislocation of the hip upwards and outwards; extension was therefore employed for some time but without any benefit.

Next day a consultation was held; the patient lay on his back; his right thigh was somewhat bent upon the pelvis, and drawn out or abducted from the other, so that the two knees were about a foot apart; the right leg was bent upon the thigh and drawn inwards, the heel being on a level with the middle of the left leg. While in this position the patient was free from pain; but he could not change it without great suffering.

Some of the medical men considered the accident to be a dislocation, while others regarded it as fracture of the neck of the thigh-bone. It was therefore necessary to study the various symptoms with peculiar care.

When the two limbs were extended and brought together, the right one was found to be about an inch and a half shorter than the left one; no traction could bring the heels on a level with each other. When the knees were bent upon

the thighs and brought together, the same degree of shortening of the right thigh was observed, in whatever position the pelvis was attempted to be placed. The great trochanter on the right side was more elevated than that on the left; the superior and anterior spinous process of the right *os ilii* also was an inch and a half, or so, higher than the corresponding process on the other side. Wherever therefore the measurement was taken, the right limb always seemed to be shorter by upwards of an inch than its fellow. The distance of the right trochanter, however, from the crest of the *os ilii* was observed to be uniformly the same, whatever was the position in which the limb was placed.

With respect to the direction of the foot on the injured side, it was, as already mentioned, rotated somewhat outwards; but the patient still retained the power of rolling it round and even inwards. He could also, while lying in bed, extend and raise the entire limb. The flexion of the thigh on the pelvis could not be carried beyond a right angle; adduction was difficult, but abduction was free and without uneasiness.* In the upright position, the patient rested rather on the heel than on the toes of the affected limb. The right shoulder was observed to be decidedly lower than its fellow, and the left side of the body was *legerment arqué*.

The patient experienced considerable pain when pressure was made over the hip-joint, and when the limb was rolled inwards and adducted; but very little when abducted. When he lay flat on his belly, the line of separation between the buttocks was sensibly inclined from right to left, and from below upwards.

Such were the most conspicuous features of the present case; and the question now came for consideration, what was the real nature of the injury present?

That the shortening of the limb was not owing to fracture of any part of the thigh-bone, M. Sedillot inferred from the circumstance that, although the foot on the injured side was drawn up about an inch and a half or so, and thus the limb *seemed* to be shorter than its fellow, the distance between the knee-joint and any point of the pelvis was exactly the same on both sides; this could not possibly be so, if one thigh were in reality shorter than the other. The distance too between the trochanters and the ant. sup. spinous processes of the ileum was steadily the same.

The free mobility of the limb also, although when left to itself it was turned outwards, and the power which the patient had of moving it in several directions were arguments against the idea of fracture of the cervix femoris being present. Still it should be well remembered by the surgical reader that, in some cases of such fracture, the patient has at first, and even for several days after the accident, retained the power of moving his limb, nay, has even walked for some distance, and yet the distinctive characters of the injury—viz, shortening of the limb, rolling of the foot outwards, crepitation when the limb is extended and turned round, pain &c.—have not made their appearance for a day or two. The explanation of such an occurrence is probably to be sought for in the circumstance that the fractured ends of the bone remained in contact at first, and that they were not separated until either the investing periosteum was torn, or the surrounding muscles had began to contract more powerfully than before.

The age too of the patient, in the present case, naturally suggested a suspicion that the neck of the bone was *not* fractured. Of 225 cases of this accident, alluded to by Sir Astley Cooper, in two only was the age of the patient under fifty years.

---

* During these movements, a rubbing noise *un bruit de frottement*, was audible? it was considered by some to be the crepitation of two broken surfaces, but M. Sedillot was of opinion that it was owing rather to the friction of fibrous surfaces one upon the other, or to slight articular shocks.

M. Sedillot therefore felt satisfied that the case was not one of fracture. That it was not one of dislocation, he inferred from the circumstance of the distance between the great trochanter—although it was very projecting—and the crest of the ileum being the same on both sides, from the comparative facility of movement, more especially that of abduction, in the limb, from the trochanter not describing a larger arc than usual when the limb was rotated, and from the turning of the foot outwards.

Dwelling upon these and other considerations, he came to the conclusion that the case was merely one of severe contusion inducing a temporary lateral deviation of the pelvis. We have already stated that, whenever the hip is the seat of pain, the pelvis on the affected side very generally becomes elevated and inclined over somewhat to the opposite side, for the purpose no doubt of relieving the weight of the limb and of the pressure of the foot on the ground. The shortening of the limb in such a case is only apparent; and this fact may always be readily ascertained by means of measurement with a piece of tape, as already alluded to.

It is not improbable that, along with the contusion of the pelvis, there was also a sprain of the hip-joint; perhaps some of the ligamentous and muscular fibres around it partially torn, or even a portion of its articular cartilage broken off. When such accidents are present, the symptoms of the case will necessarily be more obscure, and will simulate more exactly those of dislocation of, or fracture near to. the joint.

We have nothing to say as to the treatment of such injuries, as this must, as a matter of course, consist in rest, the application of leeches, and so forth. Should the deviation of the limb continue, after the immediate symptoms of the accident are removed, it may be necessary to resort to the use of mechanical means.—*L'Experience.*

ABSCESS IN THE RIGHT ILIAC REGION, CONNECTED WITH THE CÆCUM.

In the Foreign Periscope of our last number, we gave an abstract of a valuable paper on those abscesses in the iliac region, which are connected with some disease in the cæcum. The following case will illustrate a few of their more prominent symptoms.

In January, 1837, Lieutenant M. died of tubercular consumption, with which he had been afflicted for a length of time. Three years previously to his death he had been attacked with the typhoid fever; during his recovery from which, a swelling formed in the right iliac region. His medical attendants differed in opinion as to its nature. Some attributed it to enlargement of the liver from chronic hepatitis, the patient having suffered from this complaint in the island of Java, and his complexion being uniformly sallow and bilious. Others regarded it as arising from an encysted dropsy; founding their opinion on the circumstances that the swelling presented an indistinct fluctuation, and that the right lower extremity was partially œdematous.

Dr. Fallot, who however did not see the patient for a considerable length of time after the first appearance of the swelling, and when, in all probability, its characters were less ambiguous, recognised the case as one of abscess in the iliac region. Its position, and its slow and gradual formation after an attack of *enteritis folliculosa*, were sufficient to awake his suspicions. There was an indistinct fluctuation perceptible in it; and, with the exception of two or three square inches, its surface emitted a clear sound upon percussion. This character plainly shewed that the swelling did not proceed from enlarged liver.

The patient had for a length of time been taking purgative medicines, in consequence of the exceedingly constipated state of the bowels. One day, while straining at stool, he felt that something had given way inwardly, and he nearly

fainted away. The tumor in the right groin became quickly much smaller, and his dejections were found to be mixed with a quantity of purulent matter. This symptom continued for a considerable time; but gradually it diminished, and the patient recovered his health and strength so completely that he was able to rejoin his regiment, although his right limb was still stiff and dragging. During his last illness he complained much of severe pain in the place where the tumor had been situated.

Dissection.—Before opening the abdominal cavity, the hand could readily detect an uneven hardness and irregularity in the right iliac region.

The *liver* was found to be small and granulated. The *cæcum* and commencement of the ascending colon adhered to the abdominal peritoneum by numerous strong bands of lymph. The corresponding portion of the meso-colon was thickened, hard, and infiltrated with turberculous matter. The gut at this place was contracted in its diameter, in consequence of the great thickening of its parietes. The mucous surface of the extremity of the ileum, and that of the cæcum and ascending colon, exhibited numerous wrinkled pits or hollows, which were probably the cicatrices of intestinal ulcerations. The cellular substance, uniting the posterior surface of the cæcum to the muscles of the flank, was exceedingly hardened and condensed.—*Bulletin Medical Belge.*

DUPUYTREN'S POMMADE FOR BALDNESS.

The following formula for the preparation of this well-known pommade was recently sent by M. Fontaine, a respectable *Pharmacien* in Paris, to the Journal de Pharmacie.

Take of—

Beef-marrow	128 gram.
Calomel (prepared by vapour) ..	10 gram.
Alcoholic extract of cantharides ..	1 gram.
Essence of roses	4 drops.

Mix well together.

It would seem that Dupuytren was, as indeed might be expected, in the habit of varying his formula.

Thus the following two also may be received as authentic.

Take of—

Oil of beef-marrow	2 ounces.
Alcoholic extract of cantharides ..	8 grains.
Rosate oil	1 drachm.
Essence of lemons	4 drops.

Mix.

Take of—

Beef-marrow	1 1-2 ounce.
Yellow wax	2 drachms.
Rosate oil	1 1-2 ounce.
Aqueous Extract of Cantharides ..	24 grains.
Essence of cloves	4 drops.

Mix.

CLINICAL REVIEW.

GUY'S HOSPITAL.

Guy's Hospital Reports. No. VIII. April, 1839. Edited by George H. Barlow, M.A., &c. and James P. Babington, M.A. &c.

The present number offers the following physiological and pathological *carte* :—

1. On the Disorders of the Brain, connected with Diseased Kidneys; by Thomas Addison, M.D.
2. On Perforations of the Stomach, from Poisoning and Disease; by Alfred S. Taylor. (With Plate).
3. On the Diurnal Variations of the Pulse; by William Augustus Guy, M.B. Cantab.
4. Observations on Poisoning by the Vapours of Burning Charcoal and Coals; by Golding Bird, M.D. F.L.S.
5. Two Cases of Poisoning by the Inhalation of Carburetted Hydrogen; by Thomas Pridgin Teale, F.L.S.
6. Case of Imperforate Uterus, with Remarks; by Alexander Tweedie.
7. On Incision in Cases of Occlusion, and Rigidity of the Uterus; by Samuel Ashwell, M.D.
8. Observations on Fibrinous Concretions in the Heart; by Dr. Hughes, M.D. F.L.S. (With Plates.)
9. Analysis of Bones affected with Mollities Ossium; by G. O. Rees, M.D. F.G.S.
10. Case of Division of the Tibia, for the cure of Deformity occasioned by a Gun-shot Wound; by Charles Aston Key. (With Plate).
11. Case of Spermatocele, or Varicocele, treated by excision of a portion of the Scrotum; by Bransby B. Cooper, F.R.S.
12. Observations on Abdominal Tumors and Intumescence; illustrated by Cases of Renal Disease. By R. Bright, M.D. F.R.S. (With Plates).

The first paper to which we shall allude is that by Dr. Addison, which, indeed, ushers in the volume.

I. On the Disorders of the Brain connected with Diseased Kidneys. By Thomas Addison, M.D.

This able and observant Physician has directed his attention to a point of pathology or rather of semeiology, which is nearly, if not altogether, new ground. The object is threefold—

"*First*, To point out the general character and individual forms of cerebral disorder connected with interrupted function of the kidneys, from whatever cause such interrupted function may arise. *Secondly*, To shew, that, in recent as well as in chronic diseases of the kidney, the cerebral disorder is not unfrequently the most prominent, and occasionally the only obvious symptom present. And *Thirdly*, To establish a means of diagnosis, in such obscure or unsuspected cases, upon the peculiar character of the cerebral affection."

The reciprocal action of the brain on the kidney, and the kidney on the brain, has long been known; but we are not aware that any attempt has been made to specify with precision, and in detail, the several forms of cerebral disorder connected with, or dependent on renal affection—and to ground a diagnosis of

the latter on the character of the former—that is to say, to tell whether disorder of the kidney exists, when only the cerebrum offers morbid phenomena, and when there is no symptom of nephritis, dropsical effusion, or albuminous urine. We cannot abbreviate the following passage without detriment.

"According to my experience, the general character of cerebral affections connected with real disease is marked by *a pale face, a quiet pulse, a contracted or undilated and obedient pupil, and the absence of paralysis*:—this general character, however, being somewhat modified, in certain cases, by circumstances attending the individual attack.

So far as I have yet been able to observe, the individual forms of cerebral disorder connected with renal disease are the five following:—

1. A more or less sudden attack of *quiet stupor*; which may be temporary and repeated; or permanent, ending in death.

2. A sudden attack of a *peculiar modification of coma and stertor*; which may be temporary or end in death.

3. A sudden attack of *convulsions*; which may be temporary or terminate in death.

4. *A combination of the two latter*; consisting of a sudden attack of coma and stertor, accompanied by constant or intermitting convulsions.

5. A state of *dullness of intellect, sluggishness of manner*, and *drowsiness*, often preceded by *giddiness, dimness of sight*, and *pain in the head*; proceeding either to *coma* alone, or to *coma accompanied by convulsions*; the coma presenting the peculiar character already alluded to.

With respect to the first-mentioned form of cerebral disorder connected with renal disease, that of quiet stupor, it is, in its most exquisite form, probably the least frequently met with; the face is pale, the pulse quiet, the pupil natural, or at least obedient to light; and although the patient may lie almost completely motionless, there is no paralysis; for, on attentively watching him for some time, he will be observed slightly to move all the extremities. By agitating him and speaking loudly, he may sometimes be partially roused for a moment, but quickly relapses into stupor, as before; or it may not be possible to rouse him at all. There is little or no labour of respiration, no stertor, and no convulsions. Slight degrees of it occasionally precede and pass into the next or second form.

The second form of cerebral affection is that of a sudden attack of coma with stertor, or, in other words, apoplexy: it is, nevertheless, different from ordinary apoplexy: it is the serous apoplexy of authors, and presents the usual general characters of cerebral affection depending upon renal disease; for the face, instead of being flushed, is, in almost every instance, remarkably pale; the pulse, though sometimes small, and more rarely full, is remarkably quiet, or almost natural; the pupil, also, although occasionally dilated or contracted, is often remarkably natural in size, and obedient to light; and there is no paralysis. When the labour of respiration is very great, the general character is apt to be modified by an accelerated pulse, and not occasionally by a slight flush of the countenance. The coma is for the most part complete, so that the patient cannot be roused to intelligence for a single moment. The stertor is very peculiar, and in a great measure characteristic of this form of cerebral affection connected with renal disease: it has not by any means, in general, the deep rough, guttural, or nasal sound of ordinary apoplexy; it is sometimes slightly of this kind; but much more commonly the stertor presents more of a hissing character, as if produced by the air, both in inspiration and in exspiration, striking against the hard palate or even against the lips of the patient, rather than against the velum and throat, as in ordinary apoplectic stertor; the act of respiration, too, is usually, from the first, much more hurried than is observed in the coma of ordinary apoplexy. The peculiar stertor coupled with the pale face has, in more instances than one, enabled me to pronounce with confidence

the disease to be renal, without asking a single question, and in cases too, in which no renal disease whatever had for a moment been suspected.

The third form of cerebral disorder connected with renal disease is that of a sudden attack of convulsions. In this case, also, the countenance is, for the most part, remarkably pale, although occasionally, slightly flushed at intervals: the pupil is often but little affected: in slight attacks of the kind, the pulse is sometimes singularly quiet; but when the convulsions are severe, and especially when there is such a degree of coma as to be attended with stertor, the heart often sympathizes, and the pulse becomes rapid, irregular, and jerking. This form of cerebral affection often passes into the fourth variety; or the cerebral affection shall take on the form of the fourth variety from the commencement: in the latter case we have merely a combination of the second and third varieties —the coma, hurried breathing, stertor, and convulsions being so blended together as often to have led to a dispute, whether the affection ought to be designated apoplexy or epilepsy. From what has been already stated, it may, in general be very easily recognised as one of the common forms of cerebral disorder connected with renal disease.

The fifth variety is that in which the cerebral disorder makes its approach in a more gradual and insidious manner, usually commencing with dulness of intellect, sluggishness of manner, and drowsiness, gradually proceeding to coma, and more or less stertor, with or without convulsions; these states being, at the same time, distinguished by the general indications already pointed out. This form of cerebral disorder appears to be that which most commonly supervenes in the progress of the morbid change of kidney described by Dr. Bright; and is very frequently preceded by giddiness, dimness of sight, and pain in the head."

A highly interesting question is—whether there really exists any discoverable relation between the character of the renal and the cerebral affection? And if there be, in what relation are the forms, violence, and permanence of the latter to the former? Our author acknowledges that he is not yet in possession of sufficient facts to justify any very positive conclusion on these points, although he imagines that he has perceived a certain degree of relation between the affections of the two organs.

"Of all the more serious affections of the brain arising in connection with renal disease, the mildest form appears to be that of a tendency to a state of quiet stupor, varying in degree from a mere torpidity of manner and sluggishness of intellect, to complete insensibility to all surrounding objects. Accordingly, I have found this form of cerebral disorder most frequently present in what may be regarded as the least formidable, or more temporary derangements of the kidney. The most exquisite example I ever saw, occurred in a man who at the time presented no dropsical symptom whatever, whose urine was not albuminous, and who made no complaint of pain or uneasiness in his loins. After death, the cortical part of the kidneys was found highly injected, of a deep red, or almost chocolate colour, and somewhat softened in its texture; in short, furnishing the strongest indications of a recent nephritic attack in a subdued form: it is also my belief, that the same state of things not unfrequently takes place, at an early period in the progress of scarlatina: we observe an approach to a similar condition of brain in cases of fever, in which the bladder has been allowed to become over distended; and most assuredly in cases of retention from stricture, and in cases of calculus in the kidney. In all these instances, the interruption or impediment to the urinary secretion may be said to be recent or incomplete; and hence, probably the less degree of severity of the cerebral affection, and the less peril to the patient; for in such instances the symptoms very commonly pass away, and the patient recovers. When, however, the hurtful cause is of an originally nephritic character, the chance of recovery will be less than when the cause of obstruction happens to be merely mechanical and temporary.

The next, in point of severity, of the cerebral affections connected with renal

disease appears to be that of convulsions, with comparatively little stertor;—convulsions, however, which may prove speedily fatal; or which may be repeated an indefinite number of times, but from which the patient very often completely and permanently recovers. Accordingly, I have observed this form of more simple convulsions most frequently associated with what may fairly be regarded as a more exquisite and enduring form of renal disease than that just alluded to: I have observed it most frequently in cases of renal dropsy, subsequent to scarlatina; and in that form of renal dropsy supposed to arise from direct exposure to damp and cold, and commonly known by the name of inflammatory dropsy. As the renal affection has already proceeded to induce dropsy, we cannot but regard it as more fixed and more formidable than in the cases described as being attended with more or less of quiet stupor; and accordingly, instead of merely a certain degree of this latter condition, we have convulsion which may indeed prove fatal, but from which, as already observed, the patient often completely and permanently recovers."

The most stubborn and dangerous cases of cerebro-renal affection are those where the structure of the kidney is irrecoverably disorganized in the manner described by Dr. Bright. It is not true, however, that every such case is associated with cerebral disorder—on the contrary, many cases occur where the sensorial functions remain unaffected till the very last period of the renal complaint. What it is which causes this discrepancy, we are, at present, unable to ascertain. It has appeared to Dr. Addison, that when the cerebral affection does supervene on this fatal form of renal disease, its constancy, urgency, and intractability correspond with that of the primary malady.

"The patient suffering repeatedly, or more or less constantly, from heaviness, drowsiness, giddiness, or pain or sense of tightness in the head, and being peculiarly liable to be suddenly seized with the most alarming and most fatal of all the forms of cerebral disorder occurring in connection with renal disease—profound coma and stertor, with or without convulsions."

The post-mortem appearances in the brain are passed over by our author—as they are very often slight, and apparently inadequate to an explanation of the symptoms.

We are much obliged to Dr. A. for breaking ground in an untrodden path of inquiry, and have no doubt that he will prosecute the investigation with that zeal and talent for which he is distinguished.

II. ON THE DIURNAL VARIATIONS OF THE PULSE; BY WILLIAM AUGUSTUS GUY.

We have already noticed some observations of Dr. Guy's upon the pulse. Those before us now are intended to combat the popular notion, that the pulse is more frequent in the evening than in the morning, a notion which was first opposed by Dr. Knox."*

The observations of Dr. Guy are too voluminous to permit us to present them in detail. We shall therefore content ourselves with chronicling the main results.

The experiments were made at Cambridge, in the Spring of 1837. Dr. Guy rarely went to bed before midnight, often as late as one or two o'clock in the morning; he usually rose at nine o'clock.

---

* "On the relation subsisting between the time of the day and various functions of the human body, and on the manner in which the pulsations of the heart and arteries are affected by muscular exertion." By Robert Knox, M.D. Edinb. Ed. Med. and Surg. Journal, Vol. XI. p. 53.

Twenty observations made on first rising in the morning—and twenty at night, just before going to bed, and after remaining quiet for some hours—gave the following numbers; the sitting posture being maintained in all the observations.

	Morning.	Night.	Difference.
Max.....	68	61	7
Min.....	54	50	4
Mean.	64	54	10

Here, then, the pulse was more frequent in the morning than at night, by 10 beats; and there was a difference, between the highest frequency in the morning and the lowest frequency at night, of 18 beats. This remarkable diminution towards night took place in spite of the various excitements produced by food, study, or exercise during the space of fifteen or sixteen hours.

2. The following remarks on the effects produced by rest upon the pulse are not undeserving of attention.

"Though the medical man is familiar with the rapid diminution of frequency which the pulse undergoes after being raised above its natural number by food, exercise, or mental excitement, the effect of long-continued rest, in diminishing what may be termed its normal frequency, has not attracted much attention even from those who have most carefully investigated the diurnal revolutions of the pulse. If we take the frequency of the pulse on first rising in the morning, and before it has been subject to the excitement of food or exercise, as a standard of comparison, we shall find that continued rest will greatly reduce that frequency. If, again, after the pulse has been increased in frequency by food, we allow it to subside to the number which it had before the food was taken, and then continue for a considerable period in a state of rest, the pulse becomes less and less frequent, till it reaches a much lower frequency than that which it had on first rising in the morning. My first series of observations illustrates this position. But this effect takes place at all periods of the day, in the morning as well as in the evening. Are we justified, then, in regarding every progressive decrease in the frequency of the pulse as evidence that the pulse becomes less frequent as the day advances?—Certainly not. The only way, therefore, in which we can determine whether the pulse is really less frequent at night than in the morning, is by comparing the morning with the evening pulse under precisely the same circumstances. That I might make this comparison, I adopted a plan somewhat similar to the one suggested by Knox. I rose between eight and nine A. M.; and, when dressed, remained in the sitting posture, and in a state of perfect rest, for some minutes. I then counted the pulse; and took its frequency at that period as my standard of comparison throughout the day. I then ate my breakfast, which consisted of three cups of tea, and the half of a small loaf of bread and butter. Immediately after the meal, I again counted the pulse; and repeated my observations every quarter of an hour, until it had reached the same frequency which it had before the meal. From this time I continued to count the pulse every quarter of an hour, during a period varying from half-an-hour to two hours. From three to four o'clock I took a walk; and dined at four. After dinner I remained at rest till my pulse acquired the frequency which it had on first rising in the morning and before breakfast. At this point of time, which was generally between eight and nine o'clock, I took my tea, consisting of the same food, and in precisely the same quantity, as that which had formed my breakfast. After tea, I counted my pulse every quarter of an hour, till it fell to the same frequency which it had before the meal. I then repeated the observations of the morning, counting the pulse every quarter of an hour till twelve, one, or two o'clock; and taking care to make precisely the same number of observations as I had already made in

the morning. I thus obtained two series of observations, in every respect analogous, and admitting of the most exact comparison. That no error might creep in, I not only remained during the whole time of the observations at rest and in the same posture, but I took care to pursue precisely the same study in the morning as in the evening."

Omitting the table of results we will insert the summary of them.

a. It appears that the pulse is less frequent late at night than at nine A. M. by from four to six beats;* and that during the same interval of time it falls more rapidly, and attains a lower frequency in the evening than in the morning. The difference, indeed, is in no case very considerable, but it is remarkable for the uniformity of its occurrence; and it is well worthy of remark, that the same difference which occurs in the mean of all the observations takes place in each separate series; a circumstance which, as it is rarely met with in experiments on the human body, will inspire the greater confidence in the results obtained. In five out of the eleven series of observations, irregularities were observed in the morning; that is to say, the diminution of the pulse was not progressive, but an occasional increase of frequency took place. In the evening, the diminution was, in every case, uniformly progressive.

b. Out of fourteen observations, there is one only in which the immediate effect of the meal was greater in the evening than in the morning, and then only by one beat; and one only in which the effect was equal at both times in the day; whilst in every case, without exception, the effect was of shorter duration in the evening than in the morning. But by far the most remarkable fact established by these observations, is, that the same food which in the morning increases the frequency of the pulse from five to twelve beats, and keeps it raised above its natural number during from one to two hours, may in the evening produce no effect whatever.

3. Dr. Guy sums up thus:

1. The pulse of a healthy adult male in a state of rest, unexcited either by food or exercise, is most frequent in the morning, and gradually diminishes as the day advances.
2. The pulse diminishes in frequency more rapidly in the evening than in the morning.
3. The diminution of the frequency of the pulse is more regular and progressive in the evening than in the morning.
4. The effect of food is greater and more lasting in the morning than in the evening; and, in some instances, the same food which in the morning produces an effect considerable both in amount and in duration, has no effect whatever in the evening.

Dr. Guy is evidently possessed of a clear head and of professional zeal. Those useful qualities lead us to expect, and will enable him to present, contributions to practical medicine of greater value than those which he has yet offered.

III. ANALYSIS OF BONES AFFECTED WITH MOLLITIES OSSIUM. By G. O. REES, M.D. F. G. S. &c.

In a Paper published in the 21st Volume of the Medico-Chirurgical Transactions, and noticed by us at the time, Dr. Rees, an able and indefatigable chemist, demonstrated by analysis, that the different bones of the adult human

---

* "Immediately on getting out of bed, the pulse is more frequent than after an interval; so that the mean difference between the pulse at that time and late at night is, as we have already seen, about ten beats."

skeleton, in health, contained animal and earthy matter in different proportions. He has lately had an opportunity of examining some bones affected with mollities, and the following is the result of careful analyses of three specimens from the same adult subject; they are compared with those obtained from healthy bones.

	MOLLITIES.		HEALTH.	
	Earths.	Animal Matter.	Earths.	Animal Matter.
Fibula.....	32.50	67.50	60.02	39.98
Rib.....	30.00	70.00	57.49	42.51
Vertebra...	26.13	73.87	57.42	42.58

Dr. Rees observes:—

"On examining this Table, it will be observed that in the diseased as well as in the healthy bones, the fibula contains more earthy matter than either the rib or vertebra; and the rib more than the vertebra:—thus we have the same order preserved as in health. It may be noticed that the vertebra and rib, in health, approach very nearly in their proportions of animal and earthy matter; while in mollities, a considerable difference exists between them in this respect. This indicates, that though the bones are all acted upon by the absorbents in mollities, yet that the absorption does not go on equally in the bones; some being acted upon more than others. There is, however, an approach to an equality of action: for, notwithstanding that the diseased bones have lost about half of their earthy matter, yet they keep the same order, as regards proportional constitution, which we observe in health; viz. the fibula containing more earthy matter than the rib, and the rib more than the vertebra.

Having ascertained, by previous experiment, that the earthy matter obtained from the long bones of the extremities contained, as nearly as possible, 86 per cent. of phosphate of lime in health, and that the earthy matter from the trunk bones contained, on an average, *83.03 per cent.; I determined on mixing together the earths obtained from the fibula, rib, and vertebra affected with mollities, and subjecting them to analysis. This bone-earth, on examination, proved to contain only 78 per cent. of phosphate of lime. There is evidence here, that the absorption of earthy matter by disease is accompanied by a decrease in the proportion of phosphate of lime to carbonate. This would seem to shew that the absorbents carry away earthy matter containing a very large per centage of phosphate of lime; for were it otherwise, we should never find bone-earth containing so small a per centage as 78 of that earth; the smallest, in health, being 81.2 of phosphate, to 18.8 of carbonate of lime.

That the carbonate is absorbed together with the phosphate of lime, in certain though small proportion, in these processes, is proved by the fact, that bones, even those most changed by the absorption of their earthy matter, are not very greatly removed from healthy bone-earth in the general average proportion of phosphate and carbonate of lime."

IV. CASE OF SPERMATOCELE, OR VARICOCELE, TREATED BY EXCISION OF A PORTION OF THE SCROTUM. By BRANSBY B. COOPER, F. R. S.

Our readers must be aware that Sir A. Cooper has proposed excision of a portion of the scrotum as a remedy for varicocele. Mr. Bransby Cooper publishes

* This average was drawn from results obtained from seven specimens: the extremes were 81.2 and 85.0.

the following case as a highly satisfactory instance of the benefit that may accrue from the performance of the operation.

Case.—About three months ago Mr. Cooper was consulted by a young farmer, who had laboured under varicocele on the left side for upwards of two years. Mr. C. found the scrotum nearly double its natural size; and on the left side so pendulous, as to reach at least a third lower than on the opposite side. The slightest manipulation produced considerable pain, both in the testicle and in the course of the cord; and the testicle itself was wasted, and exhibited all the usual signs of an irritable condition.

"The patient complained of a constant sense of weight, attended with a heavy dull pain, extending from the testicle, along the spermatic-cord, to the loins, with an habitual feeling of restlessness and anxiety. His appetite was impaired, and a constant depression of spirits induced him to seek medical relief. All the usual remedies had been employed, as purging, recumbent posture, suspensory-bandages, and cold applications; but ineffectually. On questioning the patient as to the probable cause of the complaint, he could attribute it to none of the usual local causes, as a blow, &c. but admitted that he had always been more or less affected with a constipated state of bowels. I therefore proposed to him, that he should return into the country, submit himself to the continued influence of purgative medicine for a short time, abstaining from all violent exercise; and that if this plan did not remove his disease, I would attempt a radical cure, by the operation of excision of a portion of his scrotum. To this he readily acceded; seeming willing to submit to any temporary pain, rather than bear his protracted suffering. He therefore returned home, strictly adhered to the prescribed discipline for six weeks: at the end of which period, finding himself in no way improved, he came to London, determined to undergo any operation."

On the 18th of February, Mr. C. excised a portion of the scrotum in the following manner:

"The patient being placed in a recumbent posture at the foot of the bed, the enlarged veins of the left spermatic-cord were emptied of their blood; when Mr. Birkett drew the relaxed skin of the scrotum tightly between his fore and middle finger, so as to press the testicle closely against the external ring with the back of his hand. I then, with one sweep of the knife, removed the whole of the skin restricted by Mr. Birkett's finger, taking care to avoid the septum scroti: and thus exposed the tunica vaginalis, from which alone the left testicle now received any covering. The bleeding being very inconsiderable, I immediately proceeded to bring the edges of the incised skin together, by raising the lower portion towards the upper; and maintained the coaptation by three or four sutures; by which means I diminished the size of the left side of the scrotum, so as to form a close envelop to the testicle. The parts were then supported by adhesive-plaister and bandages, pretty tightly applied; and the whole was enveloped in cloths kept constantly moist with cold water."

Some degree of inflammation of the spermatic cords, and of the right testicle followed, suppuration occurred in the wound, but on the 4th of March he was convalescent. The spermatic cords, though firmer, were not larger than natural, and all appearance of varicocele had ceased.

Mr. Cooper remarks:—

'Various modes of treating varicose veins have been recommended—excision, division, application of ligatures, caustic and pressure, all with a view of obliterating the diseased vessel: but these means so frequently lead to phlebitis, and the consequent violent constitutional derangement, as to have led surgeons rather to adopt palliative means, than to grapple at once with the dangers inseparable from the attempts at a radical cure. The usual means employed to relieve spermatocele are, suspensory-bandages, for the purpose of diminishing

the length, and consequently the weight of the column of blood contained in the veins—the application of evaporating lotions, to produce the constricting influence of cold—and the administration of purgatives, to prevent accumulation of the contents of the large intestines. Nothing further, however, can be expected from this plan than relief from the urgency of symptoms; unless, as sometimes happens during this treatment, the veins become obliterated by the spontaneous deposition of coagula within them. Sir A. Cooper considering that the constant use of the suspensory-bandage, and application of evaporating lotions, were highly inconvenient, if not in themselves pernicious, believed that by the excision of a large portion of the skin of the scrotum, he should at once produce all the desired results of the suspensory-bandage, without the necessity for its permanent application, and, at any rate, would get rid of its inconvenience: it was with the view, therefore, of thus establishing a continued well-adjusted bandage that he recommended the operation.

It appears to me, however, and indeed seems apparent, from the daily report of the above-related case, that the excision of the portion of the scrotum leads to the cure of spermatocele, by inducing inflammation, and consequent obliteration of the diseased veins; and without the same risk as attends upon the application of any immediate means to the veins themselves, as must be the case either by the employment of a ligature or the excision of the varix.

The history of the case plainly indicates the progressive symptoms, from the first inflammation of the spermatic-veins, to the period of their ultimate obliteration."

We would observe that the operation of excision of a portion of the scrotum was founded on the idea, that, by its cicatrization and contraction, it would prove a sort of bag-truss. We have not seen the operation followed by inflammation and obliteration of the veins. If, in Mr. Cooper's case it was so, that would obviously render it more effectual. But it seems difficult to suppose that it would not render it, pari passu, more unsafe. Phlebitis is always dangerous, whatever may have been its exciting cause. We have seen a patient die of inflammation of a varicose saphena vein, induced by merely tapping it with the fingers smartly through the skin. Considerations of this nature, coupled with the actual occurrence of phlebitis in the present instance, would lead us to suspect that even excision of a bit of the scrotum *may* be followed by serous results. At the same time it carries with it fewer disadvantages than any other efficient operation for varicocele.

V. Case of Division of the Tibia, for the Cure of Deformity occasioned by a Gun-shot Wound. By Charles Aston Key.

Captain Charlton was wounded on the 17th of August, 1835, in capturing a stockade in Assam; a musket-ball fracturing the right tibia. His situation precluded proper assistance, and in March, 1838, he embarked for England.

"When he arrived in England, he walked with difficulty, supporting himself with two sticks, and carrying the broken limb at a considerable distance from the other, in order to bring the leg into a more perpendicular line of bearing. The deformity of the limb was great, to the full extent represented in the drawing. It appeared from the history of the accident, and subsequent treatment, that a considerable portion of bone having been lost on the inner side of the tibia, the broken ends had united at an angle, in the same manner, and from the same cause as an ulcerated spine acquires an irregular form from loss of substance on the anterior part of the vertebræ. The upper part of the tibia had not only formed an angle at its point of union with the lower portion of the bone, but also deviated from its natural line in relation to the femur. Its head, with the

articulatory surface, had been somewhat forced outwards, so that an appearance of obliquity was given to it when viewed from before. In addition to the great deformity of the tibia, the fibula had undergone a displacement at its upper extremity. Its head had been forced away from its articulation with the tibia, and formed an unnatural prominence, above the usual position, in reference to the tibia. The bearing of this bone was also altered, as appears in the drawing. Not having been broken at the time of the accident, it could not yield and form an angle as the tibia had at the seat of fracture; but maintaining its natural straight line, it had been compelled to alter its line of bearing, in compliance with the angular form of the larger bone. The fibula, therefore, preserved a line parallel to the lower portion of the tibia. Its lower end being forcibly acted on by the inward inclination of the foot and lower part of the tibia, had carried the upper part outward; and had caused a dislocation of its head, which had undergone some change of form, and possessed a degree of motion not natural to it in its ordinary position. The shortening of the whole limb occasioned by this alteration in form was such as to cause Captain Charlton to walk on his toes; the heel being raised an inch and a half, when he stood upright. The soft parts had a healthy aspect; and the cicatrix over the bone had not contracted a firmer union to the periosteum than is usual with wounds situated directly over bone."

This description might perhaps, be simplified by stating, that the tibia, near the junction of its upper and its middle thirds, formed an angle of between 130° and 140° salient outwards.

On the 10th of October, Sir A. Cooper made, with Mr. Key, a careful examination of the limb: and after hearing the history of the accident, and its consequences, he decided that the limb might be restored to a useful state, and that the deformity might be remedied. He suggested, as the only means of restoration, that the bones of the leg should be divided—doubting whether the division of the tibia alone would be sufficient to set the fibula at liberty;—but that the tibia should first be divided, and, if necessary, the operation should be performed on the fibula. This was carried into effect on the 14th.

"At the operation were present Sir Astley Cooper, Mr. Atkins, surgeon, who accompanied Captain Charlton from India, and under whose advice he acted, Mr. Balderson, and my pupil, Mr. Montefiore. The tibia was laid bare on its anterior surface, by a longitudinal incision nearly four inches long, which traversed the line of the old wound, and allowed the integuments to be detached on each side; so that the anterior spine and the attachment of the soleus were exposed just above the site of the old fracture. A strong steel grooved director, slightly curved, such as I use in operating for hernia, but narrow, was then passed along the outer surface of the tibia, detaching the tibialis anticus, until it reached the unyielding interosseous ligament. By a little firmer pressure, the director pierced it close to the bone. With another similar director, and by the same process, the inner and back surface of the tibia was so far detached from its muscles, that the ends of the two directors met behind the bone.

A curved needle, on which was hooked a chain-saw, was then passed along the groove of the outer director, and from thence to the groove of the inner; and its point being brought to view by a pair of dressing-forceps, the saw was adjusted so as to cut the bone from behind. When the tibia was about half sawn through, the saw—as chain-saws too often do, even when lightly used—locked, and became useless: the section of the bone was therefore completed from before by a small common saw.

As soon as the tibia was divided, Sir Astley Cooper, taking the foot in his hand, found the lower part of the leg quite free to move in any direction, and that it was unnecessary to divide the fibula. As soon as the tibia was brought into a straight line, the head of the fibula was restored in some measure to its

natural position, and ceased to project in the unseemly manner it had done before the operation. The part where the tibia was divided gaped, as soon as the bones were straightened; and the point of contact between the sawn ends of the tibia was but a small portion of its outer circumference. The muscles had, from length of time, acquired so fixed a state, that some force was required to overcome their resistance: for as soon as the hand was removed from the foot, they immediately carried it inwards, to its former position."

The limb was allowed to remain unconfined on pillows, until granulation was established. At the end of about ten days the wound had quietly gone through its several stages, and had healed, with the exception of about an inch in the centre: this part continued more or less open for some weeks, discharging a healthy pus, and giving exit to a few minute portions of exfoliating bone.

The limb, throughout the whole treatment, was kept upon the heel, with the knee straight. At first, two long lateral splints, well padded, were applied, so as to embrace the foot on each side: to these were added, afterwards, an under splint, to give more effective support and steadiness to the limb. The constant tendency to displacement was not effectually prevented by common tapes and bandages: as these became slack, the leg assumed its former distorted position; and thus motion was given to the broken ends of the bone, in adjusting the line of the limb. To avoid this, which was not practicable by means of straps or bandages, a tourniquet was applied at either end of the splint. The length of lever enabled the upper tourniquet to act with great power on the foot, and to keep it in a straight line with the thigh. The lower one was kept firmly screwed to the heel of the two splints; thus keeping the foot firmly secured, and giving steadiness to the action of the upper tourniquet. This plan of keeping the tapes of the tourniquets tight, prevented motion or displacement in the ends of the bones. It was at one time contemplated to substitute the white-of-egg bandage, in place of the splints; but the attempt was unsatisfactory, as displacement of the limb gradually took place.

Firm union was not obtained before the beginning of January. Even then the fibula had not become quite stable in its new position, and splints and common bandages were deemed requisite. The length of the limb appeared to be little curtailed.

The patient soon left town under the care of Mr. Atkins, and, on the 10th of March, that gentleman informed Mr. Key, by letter, that the long splints had been discontinued, and that the leg maintained as good a position as when he left town. Several small portions of bone had come away, which had retarded the cicatrization of the wound. In other respects he was proceeding well.

VI. CASE OF IMPERFORATE UTERUS, WITH REMARKS BY ALEXANDER TWEEDIE.

The fourth number of Guy's Hospital Reports contained the history of a case of pregnancy with imperforate uterus. The subject of that case has again come under Mr. Tweedie's care.

Mrs. P. aged between 25 and 26, called December 31, 1838, to request Mr. Tweedie to attend her in her approaching confinement. Early in the morning of the 2nd of January, he was summoned to her. She had experienced slight pains on the 31st. They increased, and about the middle of the night of the first of January, the waters broke suddenly as she turned in bed

Being much engaged, Mr. Tweedie sent an intelligent pupil, Mr. Batchelor to see the patient. He returned at noon, and reported she was indeed in labour, and the pains were of the most powerful kind: there was an opening into the uterus, through which he could feel the head presenting; but it had not dilated in the least during the time of his stay in the house; and altogether the state

of parts was different from any thing he had before felt: he had given her half a drachm of laudanum, before leaving her. About two p. m. Mr. Tweedie saw her. The uterine contractions were intensely powerful and constant, resembling those produced by the full action of ergot of rye.

"On examination, the pelvis was found amply capacious. At the uterine extremity of the vagina (which is short, and she is a little woman) was an irregular opening, which, posteriorly, and laterally, seemed continuous almost with the vagina, but anteriorly, was bounded by a strong, firm, unyielding rigid edge, upon which, at each pain, the child's head was forcibly impelled. The entire opening might be about the area of a penny, rather less than more; and upon the anterior edge was plainly felt a cicatrix of the original incision, passing forwards towards the left ilio-pubic junction. There was no trace of cervix uteri. I left her under Mr. Batcheler's care; partly to try the efforts of nature somewhat longer, but principally to seek the advice of Dr. Ashwell. The doctor was not at home: so I returned about six o'clock P. M. in company with my friend and colleague, Mr Lever.

We found our patient still suffering from undiminished pain; and the opening had not perceptibly enlarged since Mr. Batcheler had first seen her in the morning. The pulse was quickening, the skin was hot, the vagina was becoming hot and dry. We deemed it advisable to wait no longer: therefore, having emptied the bladder, I introduced two fingers of the left hand as far as the orifice; and, upon them, a blunt-pointed bistoury, guarded with linen towards the handle, so as to leave no more than about three-quarters of an inch free towards the extremity. This portion being turned upon the edge of the cicatrix, it was carefully divided, as in the manner recommended for the division of a hernial stricture.

The instrument was three times thus introduced, before the section was completed; and, at each step, both Mr. Lever and Mr. Batcheler examined the progress made. Altogether, nearly an inch in length was divided: almost no blood followed, nor did the incision occasion any pain.

This extreme caution in the manner of operating proceeded from two causes: 1st. From the fact that the uterus contracted almost as soon as the finger touched it, and it was hence difficult to insert the instrument: and, 2dly, From an apprehension, which Mr. Lever and myself entertained, that the bladder might have acquired adhesions posteriorly, consequent upon the former operation; for it was plainly felt, by each of us, in very unpleasant proximity to the part about to be incised, and it was, moreover, somewhat prolapsed into the vagina. For a brief space of time, after this, there was a temporary lull in the uterine contractions, and she appeared rather faint: a little brandy and water was given, and the pains soon returned; but little progress was made for about three-quarters of an hour, when under a severe pain, Mr. Batcheler, who was in anxious attendance, thinks an additional rent took place. The head now immediately left the uterus, and the delivery was completed without further impediment. The child was asphyxiated at the time of birth, and with difficulty restored by Mr. Batcheler. It was a female, and quite full grown."

Some pain over the pubes followed, but it yielded to Dover's powder, or to nature, and, on the 23rd, she could take a walk of four miles. The child died on the 6th.

Mr. Tweedie mentions the following additional facts:—

The child which was born to her in her first confinement is well and thriving: it is rather more than two years old. She suckled it fifteen months, from the right breast alone: the left, which had no nipple, had, after a time, ceased to secrete milk, and was shrunk up. During the time she was suckling, she believes she miscarried twice; once when two months advanced, and again when three months gone. She had no attendance either time, and was not laid up. When not pregnant, she always menstruated every month, even during the suckling:

hence arose the confusion in her calculation this time. She has been generally in good health; she has had, occasionally, a slight watery discharge in the intervals of the catamenial periods, though not nearly to the same extent as was noticed prior to her first gestation. Marital congress has always occasioned pain, especially since the period of her first confinement.

Mr. Tweedie offers the following as the probable explanation of the circumstances of the case.

"It is an ascertained fact, that our patient has no cervix uteri; that is to say, that portion of the uterus commonly called the cervix, which protrudes from its body into the vagina, which is not covered by peritoneum, and which, in the unimpregnated state, constitutes nearly a third part of the length of the whole organ, is in this woman totally wanting.—As a curious coincidence with this malformation, it is worth mentioning, that there is no nipple in the left breast. There being thus no cervix, it is evident that the glandular or follicular structure of the part cannot exist; but it does not therefore follow that there was no opening into the womb prior to impregnation. We believe there was an opening, but not surrounded by the glandular structure which naturally exists here: hence, when impregnation took place, the ordinary mucous secretion could not be found, to seal it up; and is it very unreasonable to imagine, that, under this malformation of parts, adhesive matter, instead of mucous, might have been poured forth, and thus, by adhesion, as pregnancy advanced, the orifice have become entirely obliterated?

With regard to the second confinement, it is stated, that an os uteri existed, of irregular form, posteriorly and laterally appearing almost continuous with the vagina, but anteriorly bounded with a strong, firm, unyielding, rigid edge, upon which one of the cicatrices of the first incision could be plainly felt, passing forwards towards the left ilio-pubic junction. It is probable, that, before we were called to her, the labour-pains had already separated the adhesions; which were described, after the first labour, as proceeding backwards from the artificial os uteri which Dr. Ashwell had cut; and in this way had occasioned the irregular figure which we found at the time of our examination. At all events, this fact tends, in my mind, strongly to corroborate the accuracy of our report two years ago; for it is certain that this is the opening which had been made at the former confinement, because upon its border terminated the scar of adhesion above described. And there was no other opening nor cicatrix to mark where another might have existed from the vagina into the womb."

Mr. Tweedie quotes some other cases, which it does not seem necessary for us to particularise. With the single, but not uncalled for, observation, that his communication is both interesting and instructive, we pass to the next paper.

VII. On Incision in Cases of Occlusion and Rigidity of the Uterus. By Samuel Ashwell, M.D.

Dr. Ashwell's opinion is justly prized by those who are aware of his zeal and attainments. We cite it therefore with pleasure, and our readers may consult it with advantage. Dr. Ashwell observes:—

"I am desirous to make a few brief and practical observations on the safety of incision, in most cases of entire closure of the os uteri; and in some, of the rare examples of its extreme rigidity at the time of labour. It is essential to be thus explicit in defining the cases where such an operation is required, to guard against a rash and unwarranted use of the knife; and it may unhesitatingly be affirmed, that the practitioner, before such a procedure is determined on, ought to be most fully convinced that the patient's safety can be better secured by this than by any other method. It may too be observed, that the medical attendant should not, except when a consultation cannot be obtained, adopt the plan now proposed on his own responsibility.

He thinks it may be shewn:—

1st, That incision is the safest remedy, where the os is in a state of firm and complete closure; or, in other words, where the uterus, so far as its lower orifice is concerned, is imperforate; and,

2ndly, That in examples of such extreme rigidity of the os, where, after hours of strong uterine effort, the power of dilatation is entirely absent, whether such rigidity arise from disease in the structural organization of the part, or has resulted from previous laceration and ulceration, incision is the best and safest treatment; far preferable to protracted and powerful dilatation of the os by the finger; or, on the principle of non interference, to leaving the case to the natural efforts.

a. Dr. Ashwell alludes, without approbation, to the opinion that, in many instances, an oblique cervix, the os being situated unnaturally high, is mistaken for occluded os uteri.

He goes on to state:—

There can be but little difficulty in the diagnosis of instances of complete and firm closure of the os. When parturient effort is really established, the lower portion of the uterus, in the form of a tense and large globular mass, is generally forced down very low, sometimes so far, as nearly to reach the external entrance of the vagina. Thus a finger, at all practised in these inquiries, *must* detect an aperture, if there be one; and, if not, the spot where the os uteri, at the time of conception, had been.

A repetition of uterine action will afford abundant opportunities for careful re-examination; so that no apology for indiscreet and dangerous delay can exist. If, too, a spot shall be discovered—more depressed, and of different structure to the surrounding parts, indicating the site of the os uteri at the time of impregnation, it is impossible then to doubt about the nature of the case.

The treatment of such a case naturally claims attention. He intreats practitioners to pause before they determine on large bleedings and delay—both dangerous. Two other remedies offer themselves:—

1. Such an amount of pressure, by the finger, female catheter, sound or bougie, as shall puncture or open the occlusion: and,

2. Incision with a bistoury or knife.

"When the occlusion," he goes on to remark, "is slight, depending on a thin membrane, interposed between the margins or filling up the circumference of the os, similar to the membrane found between the adherent labia of female children, the finger, as recommended by Nægele, in his very interesting Thesis, may produce a separation or orifice; or, if this digital pressure be insufficient, the catheter, sound or bougie, may enable us to do what we wish. It is afterwards to be expected, if the structure of the cervix be healthy, that dilatation of the os will proceed as satisfactorily as in the many cases where this orifice is naturally small. In such, we rarely find the power of dilatation absent."

This method of procedure is, he conceives, inapplicable, where the interposed cellular membrane, shutting up the os, has become thoroughly organized and firm; so much so, indeed, as effectually to have resisted twelve, twenty, or thirty hours of most urgent uterine effort. The forcible use of the finger or catheter must necessarily give rise to contusion, and this would be not unlikely to give birth to partial, if not general uterine inflammation. It may too, perhaps, he adds, be fairly assumed, that the risk of unlimited laceration of the uterus and adjacent parts is much less, where incisions of tolerable extent have been discreetly made, than where merely a diminutive central aperture has been formed by a blunt instrument.

b. Having proved, for we conceive it *is* proved, the value of incision in cases of occlusion of the cervix uteri, Dr. Ashwell next attempts to prove that incision may always be practised with advantage in cases where the os uteri is excessively rigid.

"It will not be supposed that I recommend the knife, to be at once employed in these more complicated maladies; but I am confident—so far, at least, as it is possible to be confident, in cases where a high probability must be our only guide—that where fatal results have occurred, they might often have been prevented by timely incision of the parts. But it has too often happened, as the appended cases shew, either that the operation has been performed too late, or that a too powerful dilatation by the finger, and an unwise reliance on the natural efforts, have altogether superseded its employment. Examples of entire occlusion without disease, like those to which I have already alluded, are much more rare than extreme rigidity of the cervix and a diminished os; nor will it be found quite so easy in the latter, as in the former class of cases, to determine the precise moment when bleeding, diaphoretics, fomentation, and delay, are to yield to the use of the bistoury; still the general safety of incision, and the known and imminent danger of protracted and severe uterine effort and contusion, ought to induce an *earlier*, rather than a *deferred* operation. A careful perusal of the cases and authorities appended to this essay, especially Smellie's can scarcely fail to impress this conviction. In every instance, or nearly so, where the division of the morbid structure has been made prior to the occurrence of inflammation and sinking, it has succeeded; and, generally, with the fewest possible bad symptoms. Where, on the contrary, violent uterine action, contrary to the sagacious directions of the experienced Dr. Hamilton, has been allowed to go on for a great number of hours—say, twelve, fifteen, twenty-four, or even a longer period—the result has been generally unfavourable, often fatal; and still more certainly so, where, during a portion of this time, powerful dilatation has been long and forcibly employed. Dilatation by the fingers is not the same operation here, as to its safety, which it is found to be in examples of rigidity not dependent on, or associated with, local or structural malady. It is true, that, in transverse and placental presentations, artificial dilatation is often practised with safety and advantage. Neither the mouth nor neck of the womb, both being healthy, suffer from the process: prevention of hæmorrhage, and a freedom from useless and exhausting pain, are the results of the process: but where the cervix is rigid, contracted, and diseased, and the os so small as scarcely to be recognised, powerful and long-continued artificial dilatation *must be a dangerous remedy.* It is scarcely to be expected that it should relax the parts and lead to dilatation: it is much more likely that it should irritate, and thus induce inflammation, gangrene, and death."

Dr. Ashwell goes on to observe:—The simplest, perhaps, of the examples of rigid os uteri is where a very contracted orifice is surrounded by a structure almost entirely undilatable. In such a case, although there may be little if any indication of organic change, still, if there be a total absence of the power of dilatation, after the use of free venesection and antimony—time having been allowed for their beneficial effects—such a case cannot be long trusted with safety, either to the natural efforts or artificial dilatation. Other examples are not so simple as this. Many, probably the majority, are the consequence of some previous morbid occurrence. The os and cervix may have been injured in a former labour: abscesses, ulcerated surfaces, and cicatrizations, may have taken place: thus the uterine orifice may have become nearly, if not entirely closed; and the relative situation of the urethra, bladder, and vagina, so altered, as to render the division of parts much more difficult and hazardous: or it may be, that a hard tumor, or a more malignant and active deposit, has imbedded itself in these parts, totally altering the os and the natural structure of the cervix. In one essential particular, all these varieties will be found to agree; viz. in the difficulty with which the os and cervix are dilated; while in some and not a few of them, the susceptibility of dilatation will have been entirely destroyed.

Supposing the incapability of dilatation satisfactorily established supposing

that bleeding and every adjuvant remedy have been fairly, but unsuccessfully tried, Dr. A. believes that we ought not to hesitate about incising the cervix, where the violence and frequent return of the uterine effort threatens rupture of the womb. If there be distressing and constant pain about the neck or body of the uterus, or in any other part; if the countenance becomes turgid and dark; if perspiration issues at every pore, and the pulse is full, strong, quick, and incompressible: and if these symptoms continue, although perhaps somewhat lessened by bleeding and antimony; there can be no doubt that recourse should be had to the incision. It is impossible to fix a precise limit during which a patient may be safely left to her own unaided efforts: time cannot be the sole ingredient, although an essential part of every rule, regulating interference in obstetric cases.

"The operation," he remarks, "in any of the cases, whether it be on an os firmly closed, yet without organic change—or on an os very diminutive and contracted, with or without surrounding disease, but entirely undilatable—is, generally, easily performed. A probe-pointed knife or bistoury is the instrument most safely used;—the woman lying, either on her left side or on her back close to the edge of the bed. The forefinger of the left hand is to be carried to that spot of the cervix intended to be cut: afterwards, the knife or bistoury is to be cautiously conveyed, along the finger in the vagina, to the spot already mentioned; and if its point be gently pushed against the uterine structure, it will completely incise the parietes. In Mrs. Purcell's case, I carried the knife, first of all, forwards, toward the neck of the bladder (which was empty), carefully avoiding it; afterwards towards the sacrum, making an incision about two inches long. The liquor amnii will necessarily escape as soon as the first incision is made. The instrument may now be carefully withdrawn,and the further dilatation left to nature. It is scarcely to be expected that all rending should be avoided; but the extent of the tearing is, as has been already stated, generally confined within the limits of the vagina. I have no experience of the better effect of a crucial incision, in preventing extensive laceration; but I am favourably inclined to it. It is not probable that much blood will be lost during or after the operation: in my own cases, only a few drachms escaped. If there should be fainting and collapse, after the incision of the parts, brandy and ammonia may be freely exhibited. It is a necessary preliminary step that the bladder and rectum be emptied of their contents. In Mrs. Purcell's case, the birth of the child was accomplished, in both instances, without instrumental aid; but the forceps is not unfrequently necessary safely to terminate the labour."

VIII. OBSERVATIONS ON ABDOMINAL TUMORS AND INTUMESCENCE: ILLUSTRATED BY CASES OF RENAL DISEASE. By R. BRIGHT, M.D. F.R.S. &c.

The present is a sequel to those valuable papers on Abdominal Tumors, of which we have, in former numbers presented an account. Of Dr. Bright's unwearied diligence and untiring zeal it is not necessary for us to speak.

The object of this communication is to exhibit such abdominal tumors as depend on enlargement of the kidney. The affections of that organ unattended with augmentation of dimensions do not come within its scope.

The chief diseases which have given rise to renal tumor in Dr. Bright's experience have been—when numerous cysts have been developed in the substance of the kidney; when puriform matter has collected in the pelvis, and converted the distended kidney into a bag of pus;—when fungoid or malignant changes have taken place in the kidney;—when fungoid matter or blood has been accumulated in the pelvis. Dr. B. has known the enlarged kidney to be mistaken for disease of the spleen—of the ovary—of the uterus—and for a tumor developed

in the concave part of the liver: nor is it perhaps possible, by the greatest care and the most precise knowledge altogether to avoid such errors.

Of the anatomical position and relations of the kidneys it does not seem requisite for us to speak. After skimming along them, Dr. Bright concludes:—

"Although closely attached to the muscles of the loins in its natural condition, yet, in those diseases in which it most rapidly increases, the enlargement shews itself much more towards the anterior part of the abdomen than towards the loins; not only because the firm structure of this part is more calculated to conceal a tumor, but also because in the other direction it meets with less immediate resistance; so that it often happens, while we are examining the lumbar region with the greatest care, and obtaining but a doubtful evidence of fulness and hardness by the eye, and by the touch, and by careful comparison of the two sides, we can scarcely place the hand upon the anterior or even the lateral part without becoming at once sensible of the existence of a distinct tumor;—and then, probably, by pressing that tumor backward, the other hand clearly informs us of its connection with the loins. The part in which the tumor is felt, will, of course, vary according to the nature of the disease, and to the portion of the kidney which it occupies; and in some cases, where the whole substance of the organ is so diseased as to contribute pretty equally to the enlargement from the beginning, the hardness or tumor will be early detected in the loins. Thus we find, that a rapidly increasing fungoid disease in the right kidney may be chiefly perceived pushing its way beneath the liver; a large collection of pus, or other accumulation, enlarging the natural cavity of the kidney, will probably be felt most distinctly towards the anterior part, and, from the assistance of gravitation, will occupy a place between the umbilicus and the crista ilii; while, on the contrary, a kidney enlarged by numerous cysts, affording a comparatively solid and uniform increase to the whole organ, will be most distinctly felt occupying the lumbar space, and giving solidity and firmness to that part. It will likewise be found that when inflammation has pervaded the kidney, or attacked the external part, it will be bound down to its natural situation, and completely fixed in the loins; not advancing, as the fungoid kidney often does, towards the anterior part of the abdomen."

a. Enlargement of the right kidney may be mistaken, if it makes its way forward, for an enlargement of the liver, for pyloric disease, for a glandular disease about Glisson's capsule, for disease of the colon or cæcum, or for enlargement of the ovary or uterus.

To distinguish it from enlargement of the liver, Dr Bright judiciously advises us to attend to its relations to the ribs. If the liver, he remarks, be healthy, we shall probably find that the tumor, as the patient lies on his back, instead of passing fairly under the ribs, dips downwards, so as to allow the finger to lie between them and the upper part of the tumor. Again, we seldom have disease of the liver to the extent which is here supposed, without producing some pretty decided symptoms, either in the colour of the eye, or the tinge of the skin, or in the deep colour of the urine, or the diseased secretions evinced by the stools.

Disease of the liver may be combined with that of the kidney, as in malignant disease. It seems to us that, under such circumstances, a precise diagnosis is a matter of very little consequence. But Dr. Bright hopes that even here it is possible, that should the urine be altered in its character, more particularly if it contain pus, and, in addition to other symptoms of hepatic affection, should the peculiar hard tubera, which, under such circumstances, often form in the liver, be perceptible under the ribs, we might come to a correct diagnosis as to both the diseases. We may, moreover, in this case, derive much assistance, from ascertaining by the feel and by percussion, the exact situation of the hollow intestines, for although it is true that they suffer great displacement, yet, if we find any of them anterior to the tumor, and lying over it, we may generally infer that the tumor does not form a part of the liver; as it is very improbable that such

a growth should arise from the concave surface of the liver, as to have any portion of the intestine in that situation.

The cæcum and ascending colon are liable to disease, and to enlargement both from the presence of flatus and from accumulation of fæces, and occasionally from other accumulations. In all these cases the disturbance of the functions of the large intestines will furnish useful assistance to our diagnosis. We shall, in cases of flatulent distention, ascertain the fact by percussion, and by the rapid alterations which the tumor undergoes. In cases of fæcal abscess, a disease very common from lodgments taking place in the vermiform process, the febrile symptoms generally run much higher than in renal tumors; there is often external inflammation and much tenderness; and, above all, the tumor is often found too low in the iliac region to be probably produced by the kidney, though Dr. Bright has known such abscesses discharge their contents almost in the lumbar region. In cases where concretions have formed, occupying a large portion of the cæcum, considerable difficulty may arise in the diagnosis, if we simply look to the tumor; but the disturbance of the bowels, the intense abdominal pains, and tormenting collection of flatus, will be our guide.

Perhaps, says Dr. Bright, the most frequent mistake is to consider the enlarged kidney, an ovarian or uterine tumor. The history of the disease offered by patients is fallacious. Dr. Bright contributes some hints towards their discrimination.

"The present situation of the tumor will enable us to discover that it is not connected with the pelvic viscera; and usually there is a distinct sulcus into which the hand may be placed between the tumor and the pelvis. Another point to be attended to, is, the situation of the hollow viscera; which, by careful examination, will be found to overlap, or to pass over the surface of the tumor; —and this, together with the history of its growth, ought sufficiently to direct our judgment. Occasionally, the ovarian tumor assumes such varieties of form, as to deceive the most experienced: and an instance very lately came to my knowledge, when several, who were consulted, altogether denied the ovarian origin of the tumor, and ascribed it to the liver; though, after death, it turned out to be ovarian. In this instance, the absence of any hollow viscera anterior to the tumor would have prevented the supposition of its being kidney at least; though the same might not hold good as to the liver. When the kidney has descended almost to the pelvis, and approached the middle line of the abdomen, it has been mistaken for uterine tumor; but an examination of the neck of the uterus, and of the uterus itself, in the usual way, will come in aid of the indications of which I have been speaking, as applicable to the ovary."

b. Enlargement of the left kidney may be mistaken for the spleen, for the descending colon, for the ovary, and for the uterus.

"The enlarged spleen is situated more anteriorly; and, in its descent, though occasionally much rounded, generally presents a more defined edge than the kidney, often suffering the fingers to be introduced beneath it; and it is sometimes notched at the edge; it has none of the hollow bowels to interrupt the uniform surface of the tumor. The spleen is sometimes inseparably attached to the tumor of the kidney, of which we have a specimen in Guy's Museum: but when this is the case, the spleen generally occupies the posterior part of the left hypochondrium, and therefore adds little either to the facility or the difficulty of diagnosis. Nearly the same remarks are applicable as regards the descending colon and its accumulations, and also the left ovary and the uterus, as have already been made, when speaking of the right."

c. There are three forms of tumor connected with the kidney, the possibility of the occurrence of which should be remembered. The one is real acephalocyst hydatid, which may develop itself in the kidney, or be attached to it. Dr. Bright has not actually met with this. The next is tumor from disease of the renal capsule; this organ being liable to both scrofulous enlargement, which our

author lately saw, and to malignant tubera, which he has seen several times. The third form of tumor, arising in connection with the kidney, is, the simple distention of the pelvis and ureter, with the natural secretion, owing to obstruction in the ureter and bladder.

When hydatids, says Dr. B. in his suggestions for a diagnosis, are developed in the kidney, they can only be ascertained by their situation, and by the means applicable to the detection of hydatids generally. The tumor of the renal capsule must at present, from its situation as a portion of the kidney itself, and from our great ignorance of the function it performs in health, be almost beyond the scope of decided diagnosis, but may be suspected from the situation of the tumor in the upper part of the kidney; but the liver lying before it, and the muscles of the back and ribs behind it, it is very improbable that it would be detected. In the case of scrofulous disease, which he witnessed, the tumor, of the size of a small egg, was fixed to the upper and posterior part of the liver, in which it was almost imbedded. The dilated ureter may be detected by its situation, which may, if not close to the kidney, be sufficiently characteristic, and by its elastic feel;—and it will be certainly detected, if its contents can be evacuated into the bladder.

d. "Supposing that our diagnosis has been satisfactorily formed, and that a tumor of the kidney has been discovered, it still becomes desirable, if it be possible, to establish the exact nature of the disease to which the increased bulk of the organ is to be ascribed;—a problem, which is even more difficult to solve than the former. We have often to look back into a long history; and there is every reason to believe that, in many cases, there is a successive or simultaneous development of different diseases; so that it is possible to come to a right conclusion as to part of the disease, and yet not discover the whole. Thus we shall find, by comparing histories with post-mortem appearances, that in one case almost undoubtedly a calculus has been deposited in the pelvis of the kidney, has excited suppuration, and a tumor has been formed; but that, after it has existed some time, malignant action has been set up. In other cases, we shall find that an injury to the loins has been followed by hæmaturia, and that, after a time, a malignant disease has established itself. Again, we shall find a calculus to begin, and this followed by a collection of pus in the pelvis, and this succeeded by a granular change in that portion of the renal substance which has not undergone absorption;—or we shall have reason to believe that the granulation of the kidney has taken place; and that afterwards, or at the same time, cysts have been formed in the cortical substance, and a tumor of the kidney has been the consequence;—and, as the post-mortem appearance, in conjunction with the history, is capable of bringing us to such conclusions, so the history by itself, in conjunction with the physical or local, and general symptoms, may bring us nearly to the same point:—and I will now proceed to refer to some of the data which may serve to guide us in the inquiry."

e. The two symptoms, most remotely connected, in the majority of cases, with diseased kidney, are hæmaturia and the passing of small calculi by the urethra. Neither necessarily indicates or leads to organic alteration, but both, when the change is discovered, throw some light on particular cases.

It is certain, continues Dr. Bright, that hæmaturia takes place under a variety of circumstances: some states of congestion and inflammation, such as often occur in consequence of intemperance, or after exposure to cold, or subsequent to scarlatina, will produce hæmaturia; and this will probably never be followed by enlargement of the kidney, or, at all events, never to the extent of producing sensible tumor; and of this we may have almost hourly experience. A general hæmorrhagic tendency of the system will often shew itself by hæmaturia; in which case, under particular circumstances, extensive ecchymosis will be produced in the pelvis of the kidney, but may subside without causing any tumor of that organ. The more local causes of hæmorrhage, as obstruction to the cir-

culation through the heart or even the large viscera of the abdomen, may produce slight hæmaturia, without any enlargement of the kidney following; but where a profuse hæmorrhage takes place, or a tendency to it shews itself, such mischief frequently follows as leads to tumor of the organ. This hæmorrhage is probably not to be considered so much the result of any one form of disease tending to enlargement, as the source from which irritation is set up. The coagulum forming, and not capable of immediate expulsion, produces irritation, and assists the deposit or the accumulation of calculus; or, by retaining the urine in the pelvis, produces inflammation and suppuration there. Every instance of hæmorrhage which can be fairly traced to the kidney, and in which the entire blood comes away in a form capable of coagulation, must be looked upon with fear, as likely to lay the foundation for some organic change. What that consequence may be depends rather on the tendency of the system or the part, than on the hæmorrhage per se.

When hæmorrhage occurs in the more advanced state of the disease, I should look to the circumstance of its being pure, or mingled with pus, as important in a diognastic point of view; when it is pure, forming clots which are perhaps moulded to the shape of the passages, if I found a tumor, I should consider it probable that the kidney was pervaded by cysts, or that, in some way, great obstruction was experienced to the passage of the blood through the remaining substance of the kidney; still the diagnosis would be modified by the character of the tumor: if it were hard, resisting, and chiefly lumbar, I should be more confirmed in this belief; and if, in addition to this, I found that the urine, when perfectly clear of blood, after the hæmorrhage had for some days completely subsided, was still albuminous, I should very confidently expect some such degeneration in the substance of the kidney as I have described, intermixed possibly with granular deposit.

When hæmorrhage occurs in smaller quantity, but mingled with pus, and generally subsiding rather more slowly than the pus, so as to form a fringe-like deposit on its surface, it probably bespeaks some local bleeding from the pelvis, either depending on the presence of a rough calculus, to a small extent lacerating or rubbing the membrane, or more commonly depending on a tendency to fungoid growths beginning to arise from it."

If small calculi, our author goes on to remark, have been passed in the early part of the history of a renal tumor, the natural conclusion to which we come is that some similar formation having taken place within the pelvis of the kidney, and having been unable to find its way down the ureter, the pelvis has been irritated either by the calculus or much more likely by the retained urine, and pus has accumulated in the cavity and distended it;—but this seldom happens, without pus being actually passed.

f. When a large tumor is formed by the kidney, and neither calculus nor blood nor pus has marked the progress of the disease, Dr. Bright would feel inclined to consider this a fungoid or malignant disease.

g. Circumstances connected with the character and growth of the tumor, independently of the nature of the renal discharge, give some hints on its nature.

If the tumor be hard and insensible, and lodged in the lumbar region, we should incline to the supposition that it was neither enlarged from pus nor from fungoid growth, and may probably be changed in structure throughout, or pervaded with cysts.

If the tumor appear to have increased very quickly, and especially to have grown irregularly, projecting in particular parts, advancing upon its upper part towards the scrobiculus cordis, rather than descending towards the pelvis, or increasing regularly towards the mesial line, we conclude that the disease is rather a fungoid or malignant growth, than the product of simple inflammation.

If the tumor have enlarged regularly, or with only certain moderate elevations, forming a somewhat ovoid body, or have become soft and fluctuating in parts, then, even if pus had not been ascertained in the urine, we should be inclined to ascribe the tumor to a collection of pus.

"When speaking of the diagnosis of these tumors, it is impossible to pass over in silence the importance of the very valuable test of pus which was first pointed out by Dr. Babington, in a former Part of these Reports. It occasionally happens, that very large deposits, both of the lithates and of the phosphates, are thrown down from the urine; which, on first being seen as they have formed or subsided in the vessel, bear so much the appearance of pus, that not only the patient, but the practitioner who has not paid a good deal of attention to the subject, has been deceived. The lithates are at once detected by their entire disappearance, if heat be gently applied, or a few ounces of warm water be added to the urine; and, indeed, we may generally learn, by inquiry from the patient, that the urine was perfectly clear when first passed, becoming turbid only as it cooled. The phosphates, however are of less easy detection; but if there be any suspicion that the deposit is purulent, by pouring off the clear fluid, and adding to the deposit a few drops of the liquor potassæ or the liquor ammoniæ, and agitating them together, we find that, if it be pus, it is converted, in the space of a few seconds, into a substance resembling the most tenacious mucus; and this process is often carried on previously to the discharge of the urine: for if the urine become alkaline in the bladder, as it often does in paralysis and in some other cases, this conversion of pus into mucus takes place in the bladder itself;—and this has probably often misled the practitioner, who has been in the habit of regarding the large quantity of ropy mucus, which is sometimes found at the bottom of the vessel, as a secretion of the mucous membrane of the bladder, whereas it is, in reality, very often only a puriform secretion of the kidney, which has undergone conversion in the bladder. I have, at this time, under my care a lady labouring under copious purulent discharge from the kidney, which, on one or two occasions, has been passed in the form of mucus, owing to the administration of alkaline remedies."

Dr. Bright winds up these observations, and ushers in his cases with these general remarks:—

"The history of those diseases which induce tumors of the kidney will, of course, vary greatly, according as they depend on simple inflammation, on a scrofulous constitution, or as they are more or less malignant in their character. The approach is often slow and insidious; and when the tumor has shewn itself, or by other indications the established disease is discovered, the patient is often able to refer back to some period when unusual exposure to cold, or some sudden jerk, or some accident to the loins, may here be the presumed exciting cause: very frequently we find in females, that although some other cause may be discovered, and perhaps some symptoms may have previously occurred, yet the malady had never shewn itself decidedly till after pregnancy, and the tumor has first been discovered as the patient recovered from her confinement: and where this is the case, it is reasonable to suppose that the pressure of the uterus having obstructed the passage of urine along the ureters, may have acted as an aggravating, or perhaps as an exciting cause of suppuration or of malignant disease. There are, however, some other circumstances connected with pregnancy, which act, in the first place, as throwing a difficulty for several months over the detection of a tumor in the abdomen, and then calling the attention more directly to its existence. In some cases we can distinctly trace that the obstruction and irritation resulting from stricture, from disease of the bladder, or from stone in the bladder, or kidney, have been the exciting causes of the disease.—Diseases of the kidney, tending to the formation of tumor, are confined to neither age nor sex. Scrofulous disease with enlargement, and fungoid diseases of the most remarkable and rapid growth, occur in children of the most

tender age: indeed the kidneys of children are very susceptible of disease, both functional and organic. In more-advanced age, the obstructions in the urinary passages increase, and formidable calculous diseases multiply."

The cases themselves are twelve in number. The first is one of tumor of the kidney, from numerous cysts found in its substance—the second, suppuration of the kidney, from stricture of the urethra, attended with perceptible tumor—third, tumor formed by the kidney—the pelvis being distended with pus—fourth, tumor from puriform collection in the kidney, first perceived after parturition, but apparently depending on the presence of a calculus—fifth, large tumor formed by the left kidney, supposed to be uterine; the pelvis being distended with grumous matter, and the substance of the organ suffering, together with the liver, from malignant disease—sixth, tumor formed by the kidney, dilated with puriform fluid—seventh, tumor of the kidney, with copious puriform discharge through the urethra, and probably through the bowels—eighth, tumor formed by the left kidney, discharging pus copiously both by the urethra and the rectum, depending on a large renal calculus—ninth, cerebriform tumor of the right kidney; supposed to be a tumor arising from the concave surface of the liver—tenth, tumor of the kidney from fungoid disease mistaken for the spleen.—Death by rupture into the peritoneal cavity—eleventh, fungoid tumor of the kidney, affording the appearance of two tumors—twelfth, fungous disease of the glands of the mesentery, resembling enlarged kidney.

We must refer the curious to Dr. Bright's paper, should they wish to learn the particulars of these cases. Appended to them are the novissima verba of the author. He thinks they prove, what indeed was but too certain before their publication, the extreme difficulty of diagnosis. That difficulty partially, if not mainly, hangs on the circumstance that there are two kidneys, and that one takes on itself much of the function, snatched by disease, from the other. The healthy kidney, it is well known, often becomes hypertrophied, a proof and a guage of its increase of action.

Dr. Bright makes some final remarks on suppuration of the kidney, with which we shall close our notice of his paper.

"In the foregoing cases we have instances of suppuration of the kidney of two kinds—where the disease seems to have begun in the substance of the organ itself; and where it has been, apparently, almost entirely a purulent secretion from the pelvis;—and this latter is by far the most common in cases which afford any enlargement of the organ capable of being discovered before death. In these cases, the whole kidney becomes reduced almost to the state of a thick sacculated membranous bag; the lining of the pelvis being brought so nearly in contact with the external tunic, that nothing but a thin and condensed layer of the substance of the kidney separates them: but there is still no apparent breach of continuity or suppuration in the substance of the organ, nor does it appear to have commenced in that way. Frequently, however, after some time, fungoid growths spring from the lining membrane; and frequently the tendency to extend and to suppurate is not bounded by the organ itself; and the most common result is, that an opening is formed into that portion of the colon which passes over it. This process, even before the communication is fully formed, is often attended with diarrhœa; which, in the already weakened condition of the patient, adds greatly to the urgeney of the disease; and when the ulceration has extended into the intestines, much puriform matter is evacuated. At other times, the tendency seems to be rather to the formation of an external opening. I do not remember to have met with a case in which it has opened of its own accord in that way; but where the fluid has approached so near the surface as to lead to the evacuation by the lancet or the trochar, it has again and again accumulated. There is at least a third way in which the pus may escape; and that is, by ulceration or rupture into the cavity of the abdomen. It is not very probable that this effusion of pus should take place by ulceration, because it

very generally happens that the adhesive process prevents such a result; but it is more probable by accidental rupture, and then would most likely prove fatal."

It is unnecessary to say more than that the present is characterised by the same minuteness and accuracy, which our author's former contributions to pathology have displayed.

MASSACHUSETTS' GENERAL HOSPITAL.

Report of the Surgical Cases and Operations that occurred in the Massachusetts General Hospital, from May 12, 1837, to May 12, 1838. By George Hayward, M.D. Surgeon to the Hospital.

Dr. Hayward observes, in limine :—

"In consequence of the absence in Europe of my respected friend and colleague, John C. Warren, M.D., the surgical department of the Massachusetts General Hospital has been under my exclusive care during the past year. The number of patients and operations has not varied materially from that of former years, nor has there been any essential difference in the character of the diseases that have come under treatment."

The hospital is small, not accommodating, conveniently, more than sixty patients, one half of whom are medical. There are from twenty to thirty free patients; the others pay various prices, according to the apartments they occupy, the lowest sum being three dollars a week.

The number of operations is large, in proportion to the number of patients; as many persons resort to the hospital, from various parts of New England, for the purpose of undergoing operations.

We shall select some particular passages from the Report, which promise utility or interest.

1. *Fractures of the Thigh.*—When this accident occurs below the middle of the bone, it is usually treated at the hospital by extension and counter-extension. The apparatus used for this purpose is a modification of Desault's, the modification consisting principally in the adaptation of a screw to the cross piece which connects the splints together at the bottom, and to this screw is attached the band or sock which passes around the ankle. By this means the extension is made more in the direction of the axis of the bone, than by the original machine, and the fractured surfaces are consequently brought more in contact.

Dr. Hayward goes on to observe :—

"The objections that are often made to this apparatus, I have not found to hold good to any extent in practice. It rarely produces much irritation in the perinæum; I have never seen ulceration there but once from this cause, and this was in a patient of a peculiarly irritable habit. It is more apt to give trouble about the ankle, on which the extending band is applied, and I have seen the heel ulcerate and slough in a few cases. These ulcers are exceedingly obstinate. Something, no doubt, may be done to prevent them by careful attention, but they will occasionally occur, even when the utmost vigilance is employed.

Another inconvenience which sometimes follows the use of the apparatus, is the stiffness of the knee. I have never known this, however, to be permanent; but it often continues several weeks, and is in some instances quite troublesome.

Notwithstanding these objections, I prefer this apparatus to any other that I have ever used for treatment of fractures of the shaft of the thigh-bone, below the middle. Fractures of the condyles of course require a different mode. In the great majority of those cases which I have seen treated in this way, there

was but little if any shortening, deformity or lameness, and the patients hardly suffered at all while under treatment."

We cordially agree with Dr. Hayward in this, and we agree with him, too, in the opinion that the long splint is not adapted for fractures in the upper third of the thigh. In the latter accident, Mr. Amesbury's fracture-bed is employed at the Massachusetts Hospital.

2. *Amputation.—Preference of the Circular to the Flap Operation.*—"Of the seven large limbs that were removed, six were done by the circular operation. This fact is noticed, from the circumstance that Mr. Liston has recently seen fit to denounce this operation in unqualified terms, declaring it to be 'vile and inadmissible' in all cases where there are two bones in the limb. It is not, perhaps, surprising that an individual should have a decided preference to that particular mode of operating which he has adopted; but it is remarkable that he should give a sweeping condemnation of a method which has the sanction of some of the greatest names in modern surgery. The flap operation is better adapted, no doubt, to some cases than the circular; but there are very many others in which I believe that the latter will be found to be the best. In fact, I must confess that where circumstances will admit of the performance of either, I should operate by the circular incision. It has, to my mind, advantages over the other method, that more than counterbalance the greater length of time which is required for its performance. A better stump, it seems to me, is made by it, and the parts heal with quite as much readiness. A patient, from whom I removed the leg above the knee by the circular operation, in June, 1837, walked out in sixteen days after the amputation, the wound being entirely healed. An artificial limb was fitted to the stump, in a few weeks after, and upon this he has walked with comfort ever since."

It is very well for Mr. Liston to speak roughly, and to denounce this practice or that. The day is past for any such dogmatism. Methods of practice will stand or fall by their intrinsic merits, not by strong opinions expressed by any man. The circular operation is preferred by the great majority of surgeons, and even Malgaigne, bred in the school of Paris, and likely to lean to the flap operation, confesses the superiority of the circular in its results.

3. *Fissure of the Rectum.*—There is perhaps no surgical operation that affords so much relief as that for fissure of the rectum, and there is hardly any disease that is more painful. It consists in a superficial ulceration of the rectum, sometimes extensive, but more often narrow, and rarely more than an inch in length. It is found more frequently on the sides and posterior part of the gut, than on the anterior. It extends down to the sphincter, and can usually be brought in view if the patients strains down. When this cannot be done, it can be felt by introducing the finger, though this is attended with great pain.

The greatest suffering is experienced at the time of defecation, and it is then often so severe that the patients are obliged to lie down for some time after. The pain is attributed by Dupuytren to a spasmodic contraction of the sphincter; this seems probable from the relief that the division of the sphincter gives in these cases before the ulcer heals, and from the fact that the same train of symptoms is sometimes met with when no ulceration can be detected. There is reason to think, too, that there is nothing peculiar in the character of the ulcer, as it usually heals so readily after the operation; and this circumstance favors the opinion that it is often the result of mechanical violence, produced sometimes by hardened fæces and at others by strong efforts made in parturition. It is very certain that it is more frequent in females than in males, and more common in those females who have borne children than in those who have not.

Dr. Hayward has found nothing but division of the ulcer and the sphincter really effectual. He thinks division from without inwards the best method. He relates a case; we shall introduce the operation.

"On examination, I found just within the margin of the anus, towards the sacrum, a narrow ulcer, an inch or more in length, quite tender and painful to the touch. The bowels having been emptied by an enema, the operation was performed in the following way. The fore-finger of the left hand having been introduced into the rectum, a spear-pointed scalpel was thrust in outside of the sphincter, till it reached the point of the finger, thus including the sphincter between the edge of the scalpel and the finger. Both were then simultaneously withdrawn, the scalpel cutting its way out through the fissure. Lint was introduced between the lips of the wound, and a compress and a T bandage completed the dressing. For two or three days he had slight spasms about the anus, which were relieved by anodyne fomentations. But after this period he had no trouble; his dejections gave him no pain, though the ulcer was not healed, and he was discharged from the hospital 'well,' in fourteen days after the operation, in all respects able to resume his ordinary avocations."

4. *Hare-lip.*—"For the last two or three years, in performing the operation for hare-lip, I have not used the common hare-lip pins. They are almost always troublesome from their size, and occasionally produce ulceration, and in this way retard, if they do not altogether prevent, the success of the operation. Instead of them I have used, when operating on very young infants, small insect pins, and for larger children, long, fine, steel needles. A head of sealing wax is easily attached to these, and the sharp end, after it is carried through the lips, can be easily cut off by bone-pliers. They interfere less with the process of adhesion than the old method, and in a number of cases in which I have used them, I have been much pleased with the result."

5. *Hydrocele.*—Dr. Hayward tells us:—

"Within a few years a new method for the cure of hydrocele has been introduced, and, if we might trust the published accounts, it has been attended with great success. I allude to the mode recommended by Mr. Lewis and Mr. Travers, of Great Britain. It consists in puncturing the tumor in one or more places with a small needle. A drop of fluid usually escapes at each puncture, and when the operation succeeds, the part from half an inch to an inch in diameter around the punctures becomes œdematous, the whole of the fluid, in forty-eight hours, is absorbed, and effusion does not again take place. This is the account given of it by its advocates, but it does not accord with my experience. I have tried it in seven cases, and repeated it several times in some of them. I have followed as exactly as I could the directions laid down for its performance; I have used various kinds of needles, and I have not succeeded in a single case. Were it not that others with whom I had conversed had been equally unsuccessful, and that I had not met with an individual who had succeeded, I should have attributed it to my own want of skill.

In one of my patients the œdema formed around the puncture and the fluid disappeared in six and thirty hours, but was effused again in three weeks. This was the only case in which there was a prospect of a cure."

We can assure Dr. Hayward that little is expected from this operation by good surgeons in this country. One or two may have been caught with it, but the majority are convinced that it is "a matter of moonshine."

6. *Erysipelas.*—It may be useful to learn the results of the experience of the surgeons of the Massachusetts Hospital on the subject of erysipelas.

A. *Its cause.*—Dr. Hayward observes:—

"It seems, however, to be certain, that the exhalations from the bodies of sick persons, when a number are confined in the same apartment, are capable of producing an atmosphere that will generate the disease, without changing, in the slightest degree, the sensible qualities of the air. I have been led to believe, by

observation to some extent on the subject, that this atmosphere was much more readily produced by those patients who had large suppurating surfaces, than by others, who were not affected in this way.

Admitting this to be true, and of its truth I think there can be no doubt, the obvious dictate of common sense is to change the air in the wards of the hospital as often as possible, so as to substitute pure air for that which has been contaminated. This is not so easily effected as at first it might seem to be. It is difficult to do it in the spring and autumn, when the weather is sufficiently mild to enable us to dispense with fires, but at the same time so cool as to require the windows to be closed at night. It is also difficult in winter, without the consumption of a large quantity of fuel, and probably the best ventilator is an old-fashioned open fire-place, but every one knows that it is not the most economical mode of warming a room. There can hardly be a doubt that erysipelas is much more common in those hospitals that are warmed by furnaces than in those that are not. The fire is usually allowed to go down at night, the ventilator is frequently closed to keep the apartment agreeably warm, and consequently the patients must inhale for several hours the foul air.

This may not be true in all institutions that are warmed in this way; but it certainly was in the Massachusetts General Hospital. A change in this respect was made the last autumn; the ventilators are now so arranged that they cannot be closed by the patients or nurses; and to render the ventilation more perfect, the upper panels of the doors of each ward, communicating with the entries which are not warmed by artificial heat, were removed, and the holes thus made, kept open during the winter. Not a death from erysipelas has occurred in the hospital since this change has been made, nor has the disease, during the last year, been of the formidable character which it frequently assumes. More extensive observation, however, is necessary to determine whether this favourable change is owing to the cause to which I have just alluded.

A moist atmosphere is also supposed by some to be favorable to the production of erysipelas. It has been thought to be more common and more malignant in those hospitals in which the floors are frequently washed, than in those in which they are kept clean by dry rubbing. The moisture may have an effect in diffusing the miasmata, and perhaps rendering them active, when they might have been harmless in a dry atmosphere. The floors of the wards of the Massachusetts General Hospital are daily washed, and the air is often more moist than is agreeable."

Were we to build on what we have seen, we should say that currents of cold air are a fruitful source of erysipelas. This prevails epidemically under the same circumstances and at the same periods when catarrh prevails. We find it during the variable weather—when the cold easterly wind of this country blows, and particularly when a piercing wind coincides with a hot sun. Often we have traced an attack of erysipelas to exposure to the draft from an open window. We believe it has been found that, in St. George's Hospital, notorious at one time for erysipelas, an equitable temperature, obtained by flues and by heated air, goes far towards its prevention. The old hospital was warmed by common fire-places—the new by heated air. The old hospital was frightfully infested with the disease. At first, the new hospital was rather worse than better, but so soon as the system of ventilation worked well the disease abated. It is right to state that the practice of washing the wards was at the same time much disused, dry-rubbing being, in a great measure substituted for it. On the whole, we are inclined to believe, that the exciting causes of catarrhal affections are exciting causes of erysipelas—that its production is also favored by an atmosphere charged with animal exhalations—that a peculiar or a vitiated habit of body predisposes to it—and that lesions of the skin or disturbance of the digestive organs, contribute materially to its establishment.

Dr. Hayward states in reference to its contagiousness:—

"I have seen nothing to lead to the belief that erysipelas is propagated by contagion. I do not mean to say that it never spreads in this way, but merely that no fact has come under my observation, either in hospital or private practice, that gives the slightest countenance to this notion."

Dr. Hayward seems to us to display judgment in his principles of treatment. He adverts to the extremes advocated and pursued by many—to the bark practice, on the one hand, and the bleeding on the other. He questions (well he may) the propriety of either in the great majority of instances. There are but few patients, he remarks, that will be benefited by bark through all the stages of erysipelas; and, on the other hand, though depletion is unquestionably highly useful to some at the onset, there are not many who will not derive advantage from tonics before the termination of the disease. In fact, they may be given with advantage earlier, and to a greater extent, than in almost any other complaint. This is particularly true of the class of subjects that are met with in hospital practice, persons for the most part whose constitutions are impaired or broken down by previous disease or excess. In this we cordially agree with Dr. Hayward. The treatment of erysipelas should not be empirical, should be adapted to the circumstances of each case. It is absurd to dole out the same treatment to sickly, or over-stimulated inhabitants of a large city, which is applied to the case of the robust and ruddy countryman. Every body knows the ridiculous fallacy of Mr. Lawrence. Attempting to render this distinction absurd, he asked where town ended and where the country began! as if we practised by Mogg's map or Paterson's road book! It signifies nothing at what mile-stone the suburb ends, but it signifies much, nay every thing, whether a man leads the life and has the constitution of a London artizan or of a north-country grazier. Mr. Lawrence, however, was all for bleeding and incisions, and he could not listen with calmness or patience to either facts or arguments against him.

7. *Prolapsus Ani.*—Dr. Hayward recommends an operation. It is readily accomplished. An enema of warm water should be first administered, and when this comes away the prolapsed portion can usually be thrown exterior to the sphincter. It can then be seized with a double hook, which should be held by an assistant. A needle, armed with a double ligature, should then be passed under the base of the prolapsed portion, the needle cut out, and one string tied firmly in one direction, and the other in the opposite. The part should then be carefully returned within the sphincter, and the ligatures allowed to hang out at the anus. If the pain be severe, an anodyne enema, or an opiate by the mouth, or both, should be administered. The patient should keep in a horizontal position, and live on a mild, liquid diet for a few days, and take a gentle laxative on the second day after the operation. The ligatures usually separate in from five to ten days.

Dr. Hayward observes, in continuation. It is no unusual thing to find, after the operation for prolapsus and internal hemorrhoids, that the patient is troubled with stricture of the rectum. This is of course produced by cicatrization, and is in most cases readily overcome by the use of the rectum bougie. If the patient should continue to use this occasionally for a length of time after the operation for either complaint, there will be much less danger of a return of the difficulty.

Another important means as a preventive, is the daily use of an enema of cold water. This should be thrown up in the morning, just before the usual time for a dejection, and it will in most instances produce the desired discharge from the bowels without pain. From a gill to half-a-pint of water is sufficient.

8. *Bad success of Removal of Cancer of the Tongue.*—"The operations for the removal of cancer of the tongue, that have come under my observation, have rarely been successful. The disease usually soon reappears in the neighbouring parts, apparently more malignant in its character, and certainly more rapid in its

progress, than before the operation. I believe that I can truly say that, with perhaps one exception, the disease has in every instance returned. In all the cases, the diseased part was entirely removed, and in some of them the actual cautery was applied to the remains of the tongue, in part for the purpose of arresting the hemorrhage, and partly to eradicate completely the disease.

Sir Everard Home thought that much was gained by using the ligature instead of the knife. In the only instance in which I tried this, it was wholly unsuccessful. The case was a fair one; the disease was limited: the whole of it was removed, and the patient in other respects healthy. Yet the wound had hardly healed before the disease reappeared, and went on with great rapidity till it destroyed the patient."

9. *Inflammation of the Hernial Sac.*—Dr. Hayward relates four cases of inflammation of the hernial sac. These we shall notice in another place. We are glad to observe the liberal spirit of diffusing clinical instruction displayed by American hospital physicians and surgeons. In whatever is enlightened and zealous they are in the foremost rank. It gives us the greatest pleasure to introduce them and their useful labours to their English brethren.

PENNSYLVANIA HOSPITAL.

REPORT OF THE SURGICAL CASES TREATED AT THE PENNSYLVANIA HOSPITAL DURING THE MONTHS OF MAY, JUNE, JULY, AUGUST, SEPTEMBER AND OCTOBER, 1838. By GEORGE W. NORRIS, M.D. one of the Surgeons to the Hospital.*

We shall notice some of the main features in the Report before us.

1. *Mode of Treating Fractures of the Thigh and Leg.*—For the thigh the straight position is preferred, and a modification of the apparatus of Desault is that generally employed. The modification consists in the greater length of the outer splint, and the attachment to its lower end of a small block, over a notch in which the extending band passes, in order that the extension be made in a line with the axis of the limb. No short splints or bandages of any sort are applied immediately to the thigh, as they prevent an accurate examination of the state of the fracture, and require that the limb should be disturbed in order to re-apply them. A long narrow bag, stuffed pretty firmly with cotton, and covered with buckskin, is used for the counter-extending band, and a double buckskin gaiter, with a thin layer of carded cotton laid over it, or a buckskin band lined with linen, is made use of for extension.

In the treatment of fractures of the leg, as in those of the thigh, no splints or bandages are applied directly to the leg. The limb is placed in a fracture-box, upon a well stuffed pillow, previously covered by a thin oil-cloth, in such a way as to make the the sole of the foot come in contact with the foot-board. The fractured bones are then accurately adjusted, and the sides of the box are tied together moderately tight. The foot is securely fastened to the foot-board by means of a strip of bandage, in order to prevent its falling to either side, and the pressure of the pillow is, in the vast majority of cases, quite sufficient to retain the fragments in their natural position. The foot-board of the box is set into its bottom nearly straight, and is made to project beyond the foot, in order to prevent the toes from falling downwards, and thus cause a projection forwards of the upper end of the lower fragment.

* American Journal of Medical Sciences.

Severe inflammation so frequently follows these fractures, in consequence of most of them being accompanied with much contusion, that measures are invariably taken ab initio to lessen its severity. These consist in the application of cooling lotions to the limb, and attention to position, elevating the fracture-box or foot of the bedstead. It is to prevent the pillow from becoming wet and unpleasant when the evaporating lotions are applied, that the oil-cloth is placed above it. In order to obviate deformity in these fractures when they occur at the lower part of the leg, it is highly important to keep the foot well forwards, and this is best done by placing under the heel some layers of carded cotton.

At the end of five or six weeks the union is generally sufficiently firm to allow of the removal of the limb from the box, and a bandage and pasteboard splints, made to fit accurately the leg by previously soaking them in warm water, are applied to its sides. On these becoming hard, the patient is permitted to move about.

In very oblique fractures of the leg, where the pressure made by the pillow is not sufficient to prevent the recurrence of deformity after its reduction, permanent extension is kept up by means of Desault's splints, as in fractures of the thigh.

2. *Frequency of Traumatic Delirium.*—"Delirium tremens is not an unfrequent attendant upon the cases of recent injury admitted into our wards, and when occurring in connection with a fractured limb, is uniformly attended with much danger to the patient. Of one hundred and forty-three cases of recent injuries treated, twenty-one were attacked with delirium tremens, and several others were threatened with it. Of the twenty-one seized with it, seven died, and fourteen recovered. In the class of cases mentioned, it usually shows itself in less than 36 hours after admission, and from the period of its setting in, little or nothing can be done in the way of treatment for the fracture. We have found the best method of managing a simple fracture of the leg or arm during an attack, to be to remove all dressings from the limb, and envelop it in a pillow. This should be large and well stuffed, and should be bound tightly around the limb by means of a roller. The elasticity of the feathers is such, that no danger of making too much pressure on the part need be entertained, and it will be found to hinder all motion, and to keep the fragments in apposition better than any more complicated apparatus. The treatment which we have found most successful in cases of delirium tremens, has been the free use of opium in the early stages, grs. ij. or iij. every two hours, together with nourishing soups, and the moderate use of stimuli. The latter are generally given in the form of porter, or tonic and antispasmodic tinctures. In the latter stages of the disease, when the pupil becomes contracted, we either omit, or very considerably diminish, the quantity of opium, and apply large blisters to the back of the head and neck."

3. *Rupture of the External Lateral Ligament of the Knee. Cure.*—Jno. Divine, labourer, ætat. 20, admitted May 31st. A short time before admission a bank of earth had fallen in upon him while at work, striking the outer part of his right knee, and carrying his leg forcibly inwards. The pain at the time of the accident was severe, and all power of motion was at once lost. Upon admission he complained altogether of his knee, which was slightly swollen. The heads of the femur and tibia could be distinctly traced, and, as well as the patella, were uninjured. Upon raising the limb and holding firmly the lower end of the femur, the leg could be pushed considerably inwards, and a separation between the extremities of the femur and tibia at the outer side of the joint was very evident, which disappeared upon the force applied to the leg being discontinued. No shortening of the limb or crepitus existed, but great pain was caused by the least motion of the part.

In order to preserve the part in a state of perfect rest, the limb was placed in a long fracture-box, and under the use of cold applications, followed by leeches to the knee, the pain abated, and the swelling in a few days disappeared. Towards the middle of July it was found that there was still an undue degree of lateral motion at the outer side of the knee, and with a view to hasten the deposit of new matter from the vessels, a blister was applied over this part. Some improvement followed this, and a second and a third application of the remedy was made at short intervals of time, with decided benefit. In the latter part of August he was suffered to move about, a soap plaster and a roller being applied, in order to give some support to the knee, and on the 15th of September he was discharged cured.

4. *The Application of the Cold-water Syphon to Lacerated Wounds.*—The continued application of cold has been used with benefit in several cases of lacerated wounds. The following was the mode of application: the pillow upon which the injured part is placed being properly protected by oiled silk, and the wound covered with lint; and, if necessary, the sides of it drawn together with adhesive plaster, one end of a long strip of lint is placed in a basin of cold water fixed on a table near to and above the level of the part, while the other end is attached to the lint laid over the wound. This, acting upon the principle of a syphon, keeps up a continuous irrigation of the parts, the water being carried off by causing another strip to connect the dressings with an empty basin placed upon the floor. The continuous application of cold in the manner described, has of late been particularly recommended in this class of wounds, by MM. Josse, of Amiens, and Berard, and in hot weather will be found an agreeable and very effectual means of preventing a too high degree of inflammation and its consequence, excessive suppuration.

5. *Hydrocele cured by Injection of Tincture of Iodine and Water.*—A labourer aged 31, had a hydrocele which had commenced at puberty.

"After drawing off the fluid, I injected a mixture of tinct. iodine and water, in the proportion of one part of the former to seven of the latter. The injection was suffered to remain but a few minutes, it being withdrawn as soon as pain was complained of. The day following the operation a good deal of pain and inflammation were present; the scrotum was supported by a bag truss, and the patient kept at rest upon his back, on a diminished diet. On the 12th, the pain had nearly left it, and the part had much diminished in size. On the 17th he left the house. Early in August he called to show me his testicle, which was at that time but little larger than natural, soft, and without pain."

6. *Varicocele, successfully treated by the Operation of Davat.—Case* 1. "J. W. ætat. 25, entered July 7th, with circocele of the left side. Examined after the patient had been using exercise; the veins of the cord of the left side were found to be nearly of the size of the little finger, and greatly convoluted; the testicle appeared sound. The mind of the patient was dejected on account of his affection, and he complained of severe pain in the loins. The general health being good, the case appeared favourable to a trial of the mode of cure proposed by Davat. On the 14th, after isolating the vein from the artery and vas deferens, (the patient being erect,) I passed an acupuncturing needle through the skin, anterior and posterior parietes of the veins; after which I pushed it upwards and forwards in such a way as to make it re-appear at the surface half an inch above the place of insertion, after a second time passing through the sides of the vessel. The needle was then fixed in this situation by the twisted suture, moderately tight. The operation was done almost without pain, and the patient was afterwards confined to a recumbent position, upon a restricted diet. But little inflammation was produced till the 18th, when the part became more

swelled, and caused pain when handled; the vein below the needle being very hard and tense: no pain towards the groin. On the 20th the skin around the needle was slightly reddened. On the 21st the needle was removed, the vein below the point of its insertion being hard and painful on pressure; a hard lump of the size of a large filbert, exists at the point at which it was inserted; no pain up towards the abdominal ring. From this date the inflammatton continued to diminish, a drop or two of pus being daily furnished from the points through which the needle had passed; but in a few days this ceased, and on the 1st of August he was discharged cured."

Case 2.—"S. B. ætat. 57, was admitted on the 5th September. The scrotum is so much stretched as to be at once remarked from its extreme length. The testicle of the left side hangs much lower than that of the right, and when separated from the veins which cover it, is found to be both smaller and softer. When allowed to hang without support it gives rise to unpleasant feelings, and the slightest knock or pressure upon it causes severe pain; the veins of the cord appear to increase in size from just below the abdominal ring, and down about the testicle, are much convoluted, irregular, and very large; the swelling is sensibly diminished by placing the patient in a horizontal position, but returns when the erect position is resumed. The patient states that he first noticed his disease about five years ago, since which time it has been gradually increasing, although a suspensory bandage was constantly worn; that a year since he laboured under a hernia of the left side, for the cure of which he wore a truss for some months. At present, even after severe straining and hard coughing, nothing like a protrusion of the bowel exists. He has no pain in the belly or about the ring, and suffers so much inconvenience from his disease, that he entered the hospital by the advice of his medical attendant, for the purpose of undergoing an operation for its cure. On the 19th two acupuncturing needles were passed through and through the two largest of the veins, and fastened by means of the twisted suture. After the operation the patient was kept at perfect rest in bed, with the scrotum elevated, and put upon a low diet. Two days afterwards some redness existed immediately around the needles, and on the 24th there was a good deal of swelling and redness of the whole side of the scrotum, accompanied with pain on being handled; slight suppuration too had taken place at the extremities of the needles, and they were both removed; no fever or pain in the groin. Treatment continued, with the addition of lead water to the scrotum. For some days after the last report a drop or two of pus continued to be discharged from the points through which one of the pins had passed. On the 2d October nearly all swelling had left the parts, and the veins were found to be very hard and much reduced in size. By the 5th all inflammation had disappeared, the parts being still more contracted. The patient was now suffered to move about; his diet increased and a smaller suspensor made use of, and a short time afterwards he was dismissed.

The mode of operating adopted in the above cases appears to me much preferable to any of the other methods recommended for the cure of varicose veins, and their results afford additional proof of the safety and efficacy of the plan when carefully applied. The passing of a needle behind the vein, and arresting the circulation in it by means of a twisted suture, as recently recommended by M. Velpeau, effects a cure by the pressure causing inflammation and subsequent ulceration, and complete division of the veins; whereas by the method of puncturing the vessel, adhesive matter is at once thrown out around the points irritated, producing the cure by union by the first intention of its internal membrane."

WESTERN LYING-IN HOSPITAL OF DUBLIN.

From an able Medical Report, the third, published by Dr. Churchill, in our excellent contemporary of Dublin, we extract the following tables. They bear on a dispute which has been literally *raging* of late in the obstetric world. Whether we shall draw on ourselves the ire of that most irascible of men, and most acrid of accoucheurs, Dr. Hamilton, we do not know. We hope not. Whatever we may think of his practice, we pray for a safe *deliverance* from his pamphlets. There can be no doubt that his is a *crotchet* case. But ad rem.

The following tables of labours of a certain length shew the duration of each stage, and the results to mother and child.

TABLE I.—*Thirteen Cases of Labour between thirty and forty Hours' Duration.*

Cases.	Length of active Labour	Length of First Stage.	Length of Second Stage.	Results to Mother.	Results to Child.
In 2 cases	31 hours	24 hours	7 hours	Favourable.	Favourable.
		29 „	2 „	„	„
In 4 „	32 „	30 „	2 „	„	„
		31 „	1 „	„	„
		31 „	1 „	„	„
		31 „	1 „	„	„
In 1 „	33 „	32 „	1 „	„	„
In 2 „	34 „	33 „	1 „	„	„
		29 „	5 „	„	„
In 3 „	36 „	33 „	3 „	„	„
		35 „	1 „	„	„
		31 „	5 „	„	„
In 1 „	38 „	37 „	1 „	„	„

TABLE II.—*Four Cases from forty to forty-eight Hours.*

No. of Cases.	Length of entire Labour.	Length of First Stage.	Length of Second Stage.	Results to Mother.	Results to Child.
In 1	40 hours	1 hour	39 hours	Favourable.	Favourable.
„ 1	45 „	44 „	1 „	„	„
„ 2	48 „	47 „	1 „	„	„
		44 „	4 „	„	„

TABLE III.—*Two Cases of Sixty Hours.*

No. of Cases.	Length of entire labour.	Length of First Stage.	Length of Second Stage.	Results to	
				Mother.	Child.
In 2	60 hours {	57 hours 59 „	3 hours. 1 „	Favourable. „	Favourable. „

TABLE IV.—*One Case beyond Sixty Hours.*

No. of Cases.	Length of entire Labour	Length of First Stage.	Length of Second Stage.	Results to	
				Mother.	Child.
In 1	66 hours.	62 hours.	4 hours.	Favourable.	Favourable.

Dr. Churchill is evidently afraid of blistering his fingers, by meddling with the controversy. He declines that dangerous amusement. St. Dunstan would find Dr. Hamilton worse to manage than the devil. We should like to see any one hold the Doctor's nose in the tongs.—*Dublin Journal, May*, 1839.

BALTIMORE ALMS-HOUSE HOSPITAL.

REPORTS OF CASES TREATED IN THE BALTIMORE ALMS HOUSE HOSPITAL. By SAMUEL ANNAN, M.D. Senior Physician to the Institution.*

Cold or Warm Applications in Ophthalmia?—We cordially agree with Dr. Annan in the following estimate of cold and warm lotions, in the treatment of catarrhal ophthalmia.

"As a topical application, in all the acute inflammations of the eye, I have found nothing afford as great relief as warm water. Bathing the eye frequently, and allowing the warm water to pass over the ball, underneath the lids, and washing out the acrid secretions, has uniformly proved highly grateful. It soothes and relaxes the inflamed membranes, and is sufficiently refrigerant by the evaporation which takes place; while it does not produce that hurtful re-action which succeeds the cold bath. Cooling lotions are pleasant at the moment of application: but in the large majority of cases, all the symptoms are aggravated by their continued use. In the commencement of some cases, they succeed well, and speedily effect a cure. The same good, however, would result from the warm; and without the risk of that injurious re-action which so often ensues. In severe and obstinate cases of conjunctivitis, I have seen the most striking relief from the excruciating pain, arise from the appli-

* Amer. Journ. Med. Sciences, Feb. 1839.

cation of cloths wrung out of hot water, and laid upon the closed lids as hot as the patient could bear. As soon as they became cool, they were again dipped in the hot water."

Dr. Annan has not found the benefit which Mr. Mackenzie promises from the use of the lotion of nitrate of silver. Nor, in ordinary cases, have we.

2. *Scrofulous Ophthalmia.*—This prevailed to a considerable extent amongst the children of the Institution. The treatment appears to have been more simple and more successful than usual. Mild purgatives, salts and tartar emetic, with the plentiful use of warm water, and carefully protecting the eye from the light by a shade, was, for the most part all that was required. A few leeches, got out of a neighbouring brook, were employed; but it was found so troublesome to get them to bite, that but a very limited use was made of them. Imported leeches are only permitted by the trustees of the institution, in what are regarded as extreme cases. Cupping the temples, and blistering, were seldom demanded. Under this treatment, it was surprising how rapidly the eyes improved. In no instance did the disease become chronic, rendering scarification of the inner surface of the eye-lids necessary. Neither were stimulating applications to the eye, nor tonics for the general system, indicated in a single instance, by the state of the ophthalmia.

3. *Treatment of Dysentery.*—"Above fifty cases of dysentery have been treated, none of which have died; with the exception of two old persons, who soon refused to take medicine, on the supposition that their time of departure had arrived; and one woman, who had been sick a month before she entered the house, and was in the last stage of exhaustion. The treatment in all the new cases consisted of full doses of calomel and opium, followed by castor oil, and this succeeded by Dover's powder. Twenty grains of calomel, with two grains of opium, or fifteen grains, with a grain and an half, were given, and six or eight hours, after, an ounce and a half, or two ounces of castor oil were administered. The opium very speedily relieved the patient from the dreadful tormina and tenesmus, procuring several hours' ease; while the calomel acted upon the liver and mucous coat of the bowels, especially the latter, promoting secretion, thus depleting the congested vessels, and changing morbid into healthful action. Free evacuations were then produced by the castor oil; by which the morbid contents of the bowels were removed, and farther secretion encouraged. After copious purgation, fifteen grains of Dover's powder, allayed the irritation of the intestinal canal, and acting upon the skin, restored its functional action; and by determining to the surface, assisted in removing the engorgement of the inflamed mucous tissue.

In many instances, this course of treatment effected a cure; and nothing farther was required, but attention to diet. In other cases, the calomel was repeated, followed by the oil and Dovers' powder. Sometimes an ounce and a half or two ounces of oil, with forty or fifty drops of laudanum, were given without the calomel, after the operation of which the patient took Dover's powder. The return of the desire to rise to stool frequently, with small, slimy discharges, and tenesmus, was regarded as evidence, that more purging was required. Free evacuations, by calomel and castor oil, uniformly, for the time, removed the tormina and tenesmus; and the restoration of the functional action of the skin appeared to assist materially in preventing their return."

In a few cases, where the disease grew decidedly chronic, other remedies were necessary. The acetate of lead and opium sometimes checked the diarrhœa as soon as was desirable. Two or three grains with half a grain of opium, were given every two, three, or four hours, according to the severity of the purging. When the disease began to yield, it was given less frequently. The balsam of copaiba was also tried, and, where it did not disagree with the stomach, pro-

duced the most happy effects; arresting the diarrhœa, diminishing the tenderness of the bowels, and preventing tormina. Two drachms of the balsam, with one of powdered gum arabic, one of tincture of opium, or occasionally two, were mixed with three ounces of water, and a table-spoonful was given three or four times a day. Where it produced sickness of stomach, and vomiting, it was exhibited by injection. From forty to sixty drops, with an equal quantity of tincture of opium, made into an emulsion with a drachm or two of powdered gum arabic, and four ounces of water, were thrown into the rectum two or three times in the twenty-four hours. The acetate of lead in the form of injection, sometimes answered a good purpose. Ten or fifteen grains, with fifty or sixty drops of laudanum, and a gill of starch mucilage, were exhibited three or four times daily. The tinctures of kino and catechu restrained the purging very effectually in some cases. In one or two instances, all these remedies were given. It was found necessary to go from one to the other, as the first appeared to lose its power in controlling the disease. Under this treatment, and confining the patient to thickened milk, rice and milk, boiled milk and bread, and weak animal broth, the diarrhœa was arrested, and convalescence took place. The bowels, however, remained irritable during a considerable period; and great caution was required, both as to diet and exposure. The slightest check of perspiration, or the least imprudence in eating, would cause a return of the purging. The occasional administration of an ounce of castor oil, with thirty or forty drops of laudanum, was of material service in advancing the cure.

Dr. Annan examines the practice of various authors and physicians. He naturally prefers, and we content ourselves with simply mentioning, his own.

4. *Case of Venereal Ulceration extending from the Anus to the Colon.*

We quote this case as a remarkable instance of the herpetic venereal sore, travelling up the gut.

N. D. aged 25, entered the House, October 19, 1837, with slight diarrhœa, and small deep ulcers around the anus, extending within the margin of the opening. A year previously she had been in the alms-house an account of syphilis, which was cured. When Dr. A. first saw her, in May, 1838, the ulcers were healed, but she was greatly reduced by discharges from the bowels. In spite of all treatment, she sank on the 3d of July.

On examination, the whole surface of the rectum as high as the promontory of the sacrum, was rough and hard, from the cicatrization of ulcers. These cicatrices were well defined by narrow strips of mucous membrane, separating them from each other, and indicating the extent of each ulcer. With these exceptions, the mucous coat was entirely destroyed, and the cicatrices were formed in the sub-mucous cellular tissue. The muscular coat was thickened and indurated, and by this means the diameter of the bowel was considerably lessened. The sigmoid flexure of the colon, the descending colon, and part of the transverse arch, were partially covered with similar cicatrices, there being portions of mucous membrane, comparatively healthy, interposed. At the upper part of the diseased portion, several ulcers were discovered, from a quarter to half an inch in diameter. These were evidently specimens of the same morbid action which produced the cicatrices; and there can be no doubt but that the ulcerative process had gone on progressively from the anus upwards; those below healing, while new ones were forming above. The sensibility of these ulcers could not have been great; as she complained of but little pain. Cups were applied once, to relieve soreness at the lower part of the abdomen.

UNIVERSITY COLLEGE HOSPITAL.

CLINICAL OBSERVATIONS BY DR. ANTHONY TODD THOMSON.

1. *Utility of the Actual Cautery in Disease of the Spinal Chord.**

After relating some cases, and making various observations on their treatment, Dr. Thomson adds:

"I confess that I have not seen much advantage derived from counter-irritants, except from the use of the actual cautery, which exerts the influence both of a counter-irritant and an issue. In three cases, in private practice, it proved completely successful; and equally so in another, which occurred in this hospital soon after it was opened; and although I have not repeated it in Clay's case, yet I am of opinion that if anything will prove serviceable, it is the long-continued influence of powerful issues, with rest in the horizontal posture; close attention to the digestive organs and the bowels, and such internal remedies as will efficiently influence the capillaries and aid absorption."

Does Dr. Thomson mean to say that issues made with the potassa fusa are not of service? Does he think, it is only issues made with the actual cautery that are of benefit?

2. *Comparative Frequency of Endocarditis in Acute Rheumatism.* †

"Among the rheumatic cases," observes Dr. Carswell, "admitted into our wards during the last three months, we have had four cases of acute rheumatism in which no physical signs of endocarditis, or other affection of the heart were observable; and also two severe cases of sciatica under similar circumstances. From the facts, however, which I have stated, it is but too certain that endocarditis is an extremely frequent complication of acute rheumatism; and in no case of this disease, however slight the local affection and the general symptoms, should we neglect to examine most carefully the condition of the heart, during the whole course of the disease."

3. *The Endermic Method.*‡

Dr. A. T. Thomson loses no opportunity of trying this, and he is impressed with its great utility. This is the mode adopted. Dr. T. loquitur:

The most common method of raising the cuticle was the application of a blister; and since the introduction of the acetum cantharidis, we possessed a very rapid and efficient means of blistering. This might be also rapidly effected by means of a compound of four parts of lard rubbed up with six of *strong* liquid ammonia. The best mode of removing the cuticle was to apply over the blister an emollient poultice; the whole of the raised cuticle was, by this means, taken off, without that suffering, to nervous and irritable patients, which the ordinary method induced. The salts of morphia, when these were the narcotics employed, tended, in some degree, to promote the suppurative process on the denuded surface, and, consequently, to prevent it from cicatrizing. Opium, henbane, and belladonna, operated in the same manner; but he had found that the influence of all of them, in that respect, was greatly augmented by the addition of a small quantity of refined sugar. It was not necessary to apply a large blister; on the contrary, as the quantity of a narcotic to be applied was small, the denuded surface needed not to be greater than it could cover.

The full dose of the narcotic should not be applied at first, the irritant influence of some narcotics being so great as to cause inflammation in the part, and thence to check absorption. It should be gradually augmented as the habit got

---

* Lancet, June 8, 1839. † Ibid. ‡ Lancet, March 23.

accustomed to it: and when the desired effect had been produced, the dose should be as gradually diminished. With respect to the part of the skin to which the narcotic was to be applied: when the local influence only was required, the blistered surface should be that directly over the seat of pain; when the general effect was to be produced, it should be as near to the head as possible.

Besides narcotics, he had advantageously administered other remedies by the endermic method; namely, strychnia, extract of colchicum, and iodide of iron; but he should confine his present remarks to the salts of morphia. In the greatest number of cases the hydrochlorate was employed; but, when an anodyne influence was especially desired, the acetate operated better, more efficiently in allaying pain, and in a shorter period of time than the hydrochlorate, probably owing to its deliquescent property.

4. *Elaterium for Hypertrophy of the Heart.*

Dr. Thomson lauds this highly. Elaterium is now extensively employed in cardiac affections, and no doubt, with care and discrimination it may be of great utility in bypertrophy, unconnected with dropsical effusion.

ST. GEORGE'S HOSPITAL.

1. Sir B. Brodie on the Insidious Character of Disease of the Vertebral Column.*

In the course of some excellent clinical remarks on diseases of the vertebral column, Sir B. Brodie observed:—

"This disease of the vertebræ begins sometimes very insidiously, and can be traced to no original source or cause. It will sometimes follow an attack of fever, and caries, with all its symptoms, becomes soon set up. There are other diseases of bones which frequently show themselves after an attack of fever. Sometimes this occurs in persons of truly scrofulous habit; sometimes in those who possess the healthiest constitutions. Pain comes on first, and suppuration and abscess soon follows. In some cases, however, a long time elapses before any change in the shape of the spinal column occurs, or abscess presents itself. I know of a case in which abscess only showed itself ten years after the irruption of the original disease; and I know of another in which the disease had existed twenty-one years before any abscess presented. An abscess, therefore, may be pent up for a very long time. It is very strange, however, that it may exist for this length of time without the constitution suffering from its irritation."

2. Diagnosis of Vertebral Disease, Lumbago, Inflammation of the Cauda Equina, and Renal Disease.

"Common Lumbago," continues Sir Benjamin,* "comes on suddenly with pain and incapability of motion, which, after a time, go off. Inflammation of the lower part of the spinal chord and the cauda equina produce pain with effusion of lymph around the spinal marrow; the sudden and violent pain in the loins resembles lumbago somewhat; but you may distinguish it by the pain not being increased on motion, and if you cup and bleed, and give mercury, the

* Lancet, March 16, 1839.

pain and paralysis subsides. Pain from affection of the kidneys generally occurs in one loin only, with consequent irritation of the bladder, with albumen and pus in the urine, which latter symptoms will sometimes render the diagnosis difficult. I knew of a case of albuminous urine, occurring in a case of diseased spine, mistaken for disease of the kidney, but whether disease of the spine will extend to the kidney, my experience does not enable me to determine."

3. DEPENDENCE OF PSOAS ABSCESS ON DISEASED BONE.*

Mr. Abernethy, said Sir Benjamin, attended much to lumbar and to psoas abscess, and formed very erroneous notions respecting it, and from him these errors have been handed down. He supposed these abscesses to be situated in the psoas muscle, and those which arose from disease in the vertebræ he considered to be exceptions to the general rule. I was looking, this morning, into Mr. Cooper's "Dictionary of Surgery," and the same opinion is there given; and I have conversed with many surgeons who hold the same views. It is very odd, if these opinions be correct, that abscess should form in the loins. True, it may form there as well as in the posterior mediastinum; but, in this part of the body, it very rarely occurs independently of disease in the osseous structures. I have examined many persons who have died of this disease, and I never found the vertebræ, or their connected textures, free from disease. I have notes of one abscess in the soft parts, coming forward above Poupart's ligament. After a time a lumbricus was discharged, I suppose from ulceration of the cæcum: but then this was not a lumbar abscess. It is true, that in dissection the original disease is overlooked, but if you remove the psoas muscle, you will find some little sinus, through which a probe may be passed, leading to the seat of disease, either in the vertebra or its cartilages. Cases occur sometimes in which the disease is seated in the dorsal vertebræ; the matter makes its way through the posterior mediastinum, between the crura of the diaphragm, along the psoas muscle, into the groin, but most commonly you find it presenting under the abdominal parietes. I have known a child carry about with it one of these abscesses as big as his head.

"I have met," he goes on to observe, "with some of these lumbar abscesses that have made their way through the abdominal ring, and along the spermatic chord. Sometimes they will appear behind, passing between the sacro-lumbalis muscle and spine of the ilium. In these cases it is very difficult, from their unusual situation, to tell precisely what they are, but wherever they appear they are one and the same disease, and spring from the same cause. It is very rare, indeed, to meet with a patient having lumbar abscess after the age of 30."

4. RESULT OF THE INJECTION FOR HYDROCELE.*

Sir B. Brodie always uses port wine and water. He has seldom known this fail more than once in twenty-five times.

The degree of inflammation, he remarks, following the injection is not always in a direct ratio to the certainty of cure, for a very small amount of the former is quite sufficient to ensure the certainty of the latter. (Sir B. C. Brodie related several cases in support of this statement.) The inflammation following the injection is so severe as to go on to suppuration, and the formation of abscesses, but I have only known it to go to this extent in West Indian constitutions;—with them I have frequently seen it occur, and they are very subject to hydrocele.

---

* Lancet, Nov. 24, 1838. † Ibid, April, 1839.

In one of these, in which I operated, the fluid was kept in but a very small time, but the patient was much debilitated at the time, and suffered some severe constitutional disturbance after it; severe inflammation came on, and matter formed, when I laid open the tunica vaginalis, and let the matter out, and the patient was soon cured afterwards.

5. Sir B. Brodie's Treatment of Gouty Acidity.*

About three or four hours after breakfast, and three or four hours after dinner, let the patient take a dose of magnesia, or potass, or soda, to neutralize the acid which there is then in the stomach. I do not think that medical men in general, when they prescribe magnesia and the alkalies, are sufficiently careful to tell their patient at what particular times to take them. They are to be taken when there is acid in the stomach to be neutralized. There is none in the morning before breakfast; and these alkalies taken in the morning, at any rate do no good, and probably are injurious. There is the greatest quantity of acid in the stomach about four hours after a meal, and subsequently to that period it has begun to get into the system, and then produces the secretion of lithic acid by the kidneys. Your object is to neutralize the acid before it passes into the circulation, and you must do that when the acid is in the stomach. A patient told me the other day, who had inflammation of the synovial membrane of the knee, accompanied with this pink deposit, that he had observed that if he took the alkali three or four hours after a meal, there was no pink deposit; but if he took it five or six hours afterwards the deposit appeared as usual.

6. Treatment of Scrofulous Disease of the Hip-Joint.

If you are called to a child in the early stage of the disease, when he limps and complains a little of pain, or perhaps does not complain of pain at all, the local treatment should be simply negative. *Keep the hip-joint in a state of perfect immobility*, which you may accomplish by a leather splint, by plaster and bandages, or merely by the invalid bedstead. I repeat that *this is all the local treatment which the disease requires, if you are called to the patient in the first instance.* I remember the time when in these cases we were in the habit of applying leeches, blisters, and issues. I am satisfied, from all I have seen of the two kinds of practice, that the abstraction of blood and the application of counter-irritants, not only do no good, but that on the contrary, by weakening and worrying the patient, they sometimes do great harm. In my own practice I have been much more successful since I laid aside all these painful remedies, and relied merely on perfect rest.

Regulation of the secretions, various tonics, more particularly steel, in the form of the old steel wine, or the alkaline infusion of sarsaparilla, prepared according to this formula:—To make a pint of the infusion, you take two ounces of the root of Jamaica sarsaparilla, cut and bruised; then you add two drachms of liquorice root, to cover the taste of the sarsaparilla; to this you add two drachms of the *liquor potassæ* and about 18 ounces of boiling distilled water; macerate the whole in a close vessel for about 20 hours; strain off the liquor, and you may give the patient, according to his age, from 4 to 6 or 8 ounces of this infusion daily—fresh air and the open air, and a *residence* at the sea side—such constitute the main features of Sir Benjamin's method of treatment.

---

* Med. Gazette, Oct. 27, 1838.

*Take care to place a Patient with Diseased Hip-joint in a good position.**

It is of some moment, urges Sir B., that you should, before the disease is very far advanced, get the limb into a good position. A child especially has always a tendency to throw one knee over the other, and to lie on one side. The consequence is, that the thigh-bone gets twisted into an awkward posture, the pelvis and the spine are also twisted, and the whole figure is in a state of distortion. It matters not how trifling the disease may be, your first duty to your patient is to make him lie down at once. Take care to place him with his shoulders a little elevated, and his limbs parallel to each other, and thus you will prevent that ugly distortion of the whole body which always takes place where these precautions are neglected.

Modes of Steadying the Joint.†

This may be accomplished (we quote for the last time from the clinical observations of this able surgeon) in different ways. In one of the cases now in the hospital a quantity of bandage was rolled upon the pelvis and the upper part of the thigh; then stripes of adhesive plaster were put over the bandage; then other bandages were applied, and other stripes of plaster; and so on till a great mass of bandage and plaster, all sticking together, was fastened round the pelvis and round the upper part of the thigh. This has fixed the boy's hip-joint very firmly, and is very nearly the method which Mr. Scott, of Bromley, employs for all diseases of the joints. He, indeed, uses mercurial ointment spread on lint under the plaster; but this, I apprehend, to be perfectly unnecessary. The good which he attributes in diseased hips to the ointment, I attribute altogether to the support afforded by the plaster and bandage, forming a kind of splint, and limiting the motion of the joint. This method, in the case up stairs, and in a number of others, is productive of very good results. But a still better method than this, in the majority of cases, is that of applying a splint adapted to the hip-joint, thigh, and pelvis, such as are used for the knee and elbow, made of very thick, hard, firm, strong leather, prepared without oil or other grease. This leather is prepared for the purpose, of cow's hide; and the consequence is, that on putting it into water a little below boiling heat, it becomes as soft as wet brown paper, and you may cut it out to any shape you please, and mould it to the hip, securing it afterwards by a bandage, and leaving it to dry on. This splint cannot fail to fit the joint, and must therefore be easy to be worn. Altogether it answers the purpose very well when the thigh is not much bent on the pelvis. Where, however, this is the case, it is very difficult to adjust the splint, and the plasters and bandages which I mentioned just now are preferable. There is still another method of fixing and supporting a diseased hip, which you will see carried into effect in one of the patients up stairs. The lad is placed on Mr. Earl's fracture or invalid bedstead.

MIDDLESEX HOSPITAL.

CLINICAL OBSERVATIONS, BY MR. ARNOTT, ON DISEASES OF THE EYE.

1. *Turpentine for Iritis.*

We need not say that it is an object to get any addition to our stock of remedies for so severe a disease as Iritis. The spirit of turpentine has been recommended by Mr. Hugh Carmichael, and tried in the following case by Mr. Arnott.

Elizabeth Dean was admitted with iritis of both eyes, and presenting the or-

* Med. Gaz. Oct. 13, 1838. † Ibid.

dinary symptoms. The disease had existed a month; there was considerable intolerance of light, and redness of the sclerotica; immoveable iris; pupil of its natural size, but irregular, with lymph in small quantity within each; and vision so impaired that she could not distinguish the largest letters. There was no evidence of syphilis.

Previous to the exhibition of calomel, and along with the application of belladonna, an active aperient was given, and the patient was cupped on the temples. By these means a diminution of the redness and intolerance of light was obtained. But as the mercury produced no effect on the system, the cupping was repeated at the end of a week. In addition to these means, leeches were twice applied, and ultimately the patient took two grains of calomel and two of Pil. Hydrarg. every four hours, and at the same time to rub in the mercurial ointment, but without any effect on the mouth or on the iritis.

Under these circumstances, spirit of turpentine, as recommended by Mr. Hugh Carmichael, was given in doses of a drachm, in emulsion, three times a day. The effect of this was very marked, for in two days the redness had greatly diminished, and in a week the symptoms of active inflammation had wholly subsided, leaving irregularity of the pupil, and points of adhesion, but with the vision restored.

She afterwards had a trifling relapse; and then, on again trying the turpentine, it had become so nauseous to her that she could hardly be induced to take it, and when she did, it was rejected. Fortunately the symptoms yielded to cupping and to tartarized antimony taken internally.

Mr. Arnott has never seen another instance of a similar amount of benefit from turpentine. He justly remarks that one great objection to it, is the sickness which it creates in some.*

2. *Deafness from Tumefaction of the Membrane of the Tympanum, relieved by the Acetate of Lead.*†

J. Parker, aged 19, admitted Jan. 28, with ulcer of the leg and deafness, which had existed since childhood; he had always had more or less discharge from his ears, and had been told that some bones had come away. Repeated blistering, and a variety of injections, had been ineffectually tried by him.

On an accurate examination of the degree to which this sense was impaired, a watch was employed, the ticking of which can be heard at the distance of twenty feet. Parker, could not recognize it with his left ear further off than five inches; with the *right*, not further than nineteen. There was no redness, swelling, or rawness, of the parties of the external meatus. Not the slightest appearance of wax in the left, and but a very trifling in the right ear. The membrana tympani in each was gone; the cavity of the tympanum in both was filled with a milky secretion, devoid of offensive odour. This having been in some degree removed by syringing the parts, the lining membrane of the tympanum was seen to be more tumid and redder than natural.

With the view of correcting this, a solution of the acetate of lead—six grains to the ounce of water—was ordered to be dropped into the ear twice daily, and the parts to be syringed with it once daily. Under this treatment the improvement was unexpectedly rapid In five days the hearing distance of the left ear had increased from five inches to two feet ten inches; in the right, from nineteen inches to seven feet five inches; and (without taking the intermediate periods) in three weeks, in the left ear, to fifteen feet; and in the right to eighteen. The discharge now ceased, and the lining of the cavity of the tympanum had lost that swollen and pulpy appearance it had previously presented.

---

* Med. Gaz. April 13, 1839. † Ibid.

MISCELLANIES.

MR. LISTON ON WET LINT POULTICES.

PERHAPS one of the most striking features in Mr. Liston's "Operative Surgery" is the horror which he entertains of poultices.

We must let Mr. Liston speak for himself. He is talking of wounds.

"In accidental wounds, the part implicated is to be relaxed, and displacement remedied by position; any flap so formed and reverted is retained by the mild and unirritating isinglass-plaster; a stitch may sometimes be put in, or a compress and bandage, applied slackly, may be used for the purpose of keeping the parts somewhat in their relative situation; but any attempt to pull them into close contact, and keep them so, in the hope of union taking place, is futile; in fact, the use of any retentive means ought to form an exception to the general rule which should guide our procedure. The sooner discharge is established the better; lint dipped in cold water may be applied for a few hours till the oozing has ceased, and then with the view of promoting secretion of pus, of thus soothing the painful and uneasy feelings, and of preventing extensive swelling, heat and moisture are substituted. A poultice, always a filthy and uncomfortable application from its weight and stench, may be used; what is much better, equally efficacious, and not liable to objection in any way, is a double piece of lint soaked in hot water, of agreeable temperature, applied to the part; it is covered by an ample piece of oiled silk, to prevent evaporation, and this dressing, simple enough, but answering every purpose, is removed frequently; the lint may be moistened by merely removing the oiled silk, if the parts are very tender, and if it be not soiled by discharges; all the soothing effect of a poultice is thus produced, without any discomfort. This warm water dressing is light and nice, and it is changed often if there be any unpleasant odour exhaled; it may be medicated with extract of poppies, or salts of opium, or it may be coloured, or have some aromatic added, if the patient does not put faith in simple means. A great deal has been said about water-dressing, and the merit of introducing it; water has been applied to sores from time immemorial. The simple element, water, was supposed to be congenial to wounds and sores; it was used to cool parts. The water-dressing has been used in my hospital and private practice for a long series of years, as a substitute for poultice, as a means of conveying and preserving heat and moisture, on a surface that should secrete pus for its protection, and as an accompaniment of the process of healing by the second intention. A poultice, (the very word is disgustingly associated with putrefaction and nastiness,) has very seldom been employed either in my hospital or private practice, for the last ten or twelve years; in fact, our nurses at the North London have almost forgotton the mode of making the abomination."

ON THE CAUSES OF SUICIDE. By HENRY WHITFIELD, M.R.C.S. OF ASHFORD.

To ascertain the causes of suicide we must first understand the natural laws of pain and death.

Pain is the sentinel to the body, it warns it of the approach of danger: each organ of the body is guarded by a sensibility peculiar to itself; but feels no more pain than is necessary for its own preservation, and for those organs under its care: thus the skin protects not only itself but the rest of the body;

and consequently is endowed with extreme sensibility; it is painfully affected by heat and cold, by cuts and blows, by excess of pressure, and by caustics; the ligaments are insensible to all of these, but give ample warning when overstretched, as in a sprained ancle; the teeth caution us against acids, although the palate may be agreeably affected; the brain, heart, and stomach have also their respective feelings, and each tells its own tale of distress when abused: much more could be said of the protecting influence of pain, and its nice adaptation to its purpose;* but here it is sufficient to observe that pain is as necessary to protect the body, as food is for its support. Let us now view it in disease; when either the heart, lungs, liver, stomach, or bowels, are attacked with inflammation; it is pain that rouses the sufferer to his danger; and if it gains not his attention, it increases in exact proportion as does the danger, till at last it becomes so intense as to enforce the seeking relief. As the organ recovers, the sufferer is eased of his pangs; but should the art of man be of no avail, is the poor patient to remain in agony? Is he doomed to many years in torment? No—God in his mercy hath ordered it otherwise; death gives its timely aid; the sufferer is at rest. Here again we see there is no unnecessary affliction;† and I wish particularly to draw your attention to the fact; that in all diseases of the body, where death is the natural consequence, the sufferer never attempts self-destruction; it matters not how acute the pain, or of how long duration; or whether he is courageous or cowardly, virtuous or profligate. He may pray for death, but never commits suicide.

Let us now direct our attention to the mind. The mind has its pangs as well as the body, and also has its remedies. When a fellow creature is deeply distressed from loss of friends, property, or other calamities, as long as he retains his reason, relief is at hand; the word of God teaches him patience under affliction, and points to future bliss, when the present is denied; this, with the sympathy of friends, and other remedies, moral and physical, will restore him once more to cheerfulness: But supposing his calamities to follow so quickly, or from an hereditary, or some physical cause that his reason is overwhelmed, that he is insane, the material organ diseased; where now is the remedy? No religion, no sympathy of friends can enter his mind, he will not so much as listen to his medical advisers; unrestrained by human laws he may be said to be past recovery; here then is no hope; utter ruin. We have seen in diseases of the body that death gives its timely aid; but death comes not here; though now in youth he may live to old age. Why then is the greatest of sufferers denied all consolation, and doomed to many years of torment? It may be said that God afflicts us for our good, to chasten us: every person who is in the habit of visiting the sick has seen the mind improve under the pains of the body; but no man ever witnessed the mind chastened by its own disease; it is impossible.

Why then this exception to the merciful law of death? But is there an exception? Is there ever an exception in the natural laws? Is there not throughout a most perfect consistency? Let us look to facts. Every medical man must have observed that those who are suffering much from a diseased mind have ever a tendency to self-destruction, and this is not confined to those that were daring, and profligate; for the same proneness exists with the mild, timid and religious. She who but a month before would have turned pale at the sight of blood, and have shuddered at the thought of such a deed; will deliberately and firmly raise the deadly weapon against herself when reason has fled, and deep-seated melancholy pervades the soul.

Seeing then that God is ever unwilling that man should be afflicted unneces-

---

* See Sir C. Bell's Bridgewater Treatise.

† See Mr. G. Coombe's "Constitution of Man."

sarily, and that in all diseases where death is the natural consequence, man however daring and wicked never attempts to escape prolonged suffering by suicide: but that in mental disease where death comes not, the sufferer however timid and pious is ever prone to the deed; and I am forced to the conclusion that suicide is the natural termination of insanity: and the more I contemplate the subject, the more am I convinced that it is a most wise and benevolent decree of Providence.

One of the advantages arising from this tendency to suicide, is that it has compelled man to legislate for the protection of the invalid, and this protection has proved to be as necessary for the recovery of the mental health, as for the continuance of life.

Before this subject is concluded another question must be discussed; Does man while in possession of his reason commit suicide? This can be best understood by another question. What are the obstacles to the commission of the deed? They are the Christian religion and the instinctive love of life. The Christian religion is of itself ever sufficient with those who during their lives have listened to its ordinances, and have received its support. But can it be expected to be efficacious with those who never read the word of God; whose thoughts are confined to the vain pleasures of the present; the future never entering their minds? No—when therefore one of these worldly men after a life of dissipation and profligacy, has spent his last shilling, and consequently has nothing but extreme poverty with its miseries before him; his reason prompts him to the deed: and will the instinctive love of life be a sufficient barrier to its commission; when we find that on the battle-field, thousands, for glory and promotion, will face the cannon's mouth, or lead a "forlorn hope:" and more especially when we read almost daily of gentlemen standing as a target to be shot at, in preference to giving an apology for a harsh expression uttered during excitement: if rational beings can thus in one act overcome the love of life, and in addition disobey the laws of God, and man, and break through all social, and domestic ties; we may fairly conclude, that the love of life will not prevent the dissipated gamester rushing upon his own sword to rid himself of a world of woes.

But it matters little in a moral view, whether the vicious man has lost his reason at the fatal moment or not; for if my opinion is correct that the Supreme Being in his aversion to unnecessary suffering, gives power to the insane for the escape of many years of useless agony; because they are beyond all consolation and benefit from his revealed word: it is fair to infer that when a man by his intemperance has placed himself in this situation, he has already committed suicide, and each time he deliberately does an act of drunkenness or otherwise inflicts a blow on his brain, he is in some degree guilty of the deed.

In the foregoing observations, I have intentionally avoided entering upon diseases of a mixed character, such as partake both of body and mind, fearing to confuse the subject, as for instance morbid affections of the membranes of the brain are generally disposed to end in death, but from their intimate connexion with the *substance* of the brain, occasionally terminate in suicide.

STUDENTSHIPS IN ANATOMY IN THE ROYAL COLLEGE OF SURGEONS OF LONDON.

The following ordinance can excite but one sentiment, meet with but one judgement—approbation. It is impossible not to perceive that there are men in the present Council of the College who can read the signs of the times, and are inclined to profit by what they read. To those men we appeal with confidence. Let them by a wise profusion, and an economical extravagance, apply some of the revenue of the College to purposes of undoubted professional utility—let

them narrow, it may be, their own private income from the College, in order to divert the generous stream into the fair channel of scientific advancement—let them lend their hands to the encouragement of merit in their students and their young members, and further the real interests of all their members—let them shew that they are sensible of the importance of the trust they hold for the surgical body and for surgery—let them do this, (and it should and may be done,) and popularity, not bastard and fleeting and contemptible, but substantial, honourable, glorious popularity, will augment their sphere of usefulness, and swell their measure of dignity.

ORDINANCE.

1. Two studentships in human and comparative anatomy shall be instituted, to be held by each student for the term of three years, at a salary of one hundred pounds per annum.

2. Candidates shall be members of the college, under 26 years of age.

3. The council shall determine, annually, whether one or more of such appointments, shall take place during the current year, and shall notify its resolution by public advertisement.

4. The appointment shall be made in the month of June, or as soon after as possible.

5. The students shall be subject to such duties and restrictions as the council shall from time to time direct; and in case of misconduct shall be liable to dismissal.

REGULATIONS.

1. A report shall be made to the council, in the month of March, of the number of vacancies, or expected vacancies, in these studentships; whereupon the council shall determine whether any, and what number of such vacancies shall be filled up, and shall direct the necessary advertisements.

2. Candidates shall transmit to the secretary, on or before the 1st of May, their applications for the appointment, together with certificates of general good character and of fair acquirements in general learning, signed by two qualified members of the medical profession.

3. A meeting of the museum committee shall be held as soon after the 1st of May as conveniently may be, at which the applications of the persons offering themselves shall be examined, and, if approved, they shall be admitted as candidates.

4. The museum committee shall determine the mode of ascertaining the merits of the several candidates, and shall, after due investigation, report to the council which of the candidates, in their opinion, possesses the highest merit.

5. Students shall attend in the museum daily (Sundays excepted) from ten till four o'clock, and shall be entirely under the direction of the conservators, who shall employ them as they shall see fit; and who have the power of granting leave of absence when they think proper.

6. In case of misconduct or neglect, the students shall be liable to be dismissed at any time by the president and vice-presidents, who are to report such dismissal, with the grounds thereof, to the next meeting of the Council.

May 10th, 1839. EDMUND BELFOUR, Secretary.

*** Upon the present occasion, the applications and certificates must be sent in by the 24th of June next.

NEW MODE OF TREATING PROLAPSUS UTERI.

Mr. Benjamin Phillips, as our contemporary* tells us, relates the case of a patient

* Medical Gazette, May 18, 1839.

in the St. Marylebone Infirmary, in whom the infirmity had existed for several years, and who had been unable to bear the irritation occasioned by pessaries of all shapes and of every material employed in supporting the womb. In this case the author succeeded in giving complete relief by destroying a portion of the mucous lining of the vagina by means of strong nitric acid. The contraction which ensued on the separation of the sloughs reduced the vagina to the size of that of a woman who had never borne children.

KLUGE'S TREATMENT OF SYPHILIS.

A correspondent of our contemporary,* communicates this for the *benefit* of the English reader.

In every case of primary or of secondary syphilitic affection, Professor Kluge prescribes a quantity of Epsom salts, dissolved in fennel water, sufficient to cause from three to five watery evacuations; and this to be taken every second day during the first week, and every third at a later period. The patient is also usually put on vegetable diet, and kept in a room of moderately warm temperature, and generally confined to bed, especially at first. Local applications are seldom made; and, in gonorrhœa, no local treatment, further than having the parts affected carefully bathed with water, is considered necessary.

In the more obstinate cases of secondary syphilis, instead of salts, the patient takes enough of the decoctum Zittmanni, or of a compound decoction of sarsaparilla (which contains some infusion of senna), to open the bowels two or three times a day. When patients already affected by mercury present themselves, sulphur, or baths of sulphuret of potass, are prescribed as preliminary measures.

With the greatest deference to Dr. Kluge, we should be very sorry to recommend, or imitate his practice. This is the sort of stuff that our young travelling surgeons and physicians fill their heads with. It will never enable them to fill their pockets in this country, we can tell them. The I. M. S. and A. S. S. had far better stop at home, and learn to *cure* their countrymen.

ANTIQUITY OF VACCINATION.

In the Report of the National Vaccine Establishment, it is stated that "the original vaccine lymph, introduced at the Vaccine Establishment by Dr. Jenner, "has passed through nearly a million of subjects *successively*, of whom many thousands have been exposed, with entire impunity, to small-pox in its most malignant form."

On which Mr. Estlin remarks :†—

"Now it is only forty years since the introduction of vaccination, and, however numerous may be the subjects that have been vaccinated at one time from the same individual, the stock of matter at present employed at the National Vaccine Establishment can only have passed through 2080 subjects, even supposing that lymph, for subsequent vaccination had been taken every seven days from a fresh subject, without any interruption, from the time when Dr. Jenner first sent it to London. In order that it should pass through a million subjects, the lapse of 19,230 years and 10 months would be required.?"

As this would carry the origin of vaccination to about thirteen thousand years before the beginning of the world, it is obvious that its antiquity is very considerable. The only wonder is, how the National Vaccine Establishment found it out.‡

---

* Medical Gazette, March 16, 1839. † Ibid. March 9, 1839.

‡ Of course the statement is construed literally; for 500 or 1000 may be, *at the same time*, passing through the vaccine process.

MEDICAL VALETS.

The following advertisement has several times appeared, and many such will no doubt continue to appear in the public journals.

"*To Invalids and Gentlemen.*—Wanted, by a young man, a member of the medical profession, a situation to attend upon or travel with invalids, or gentlemen. Would have no objection to perform the duties of valet. Can give the most satisfactory references as to character, ability, &c.—*Times*, May 27, 1830.

What will the friends of cheap knowledge say to this? They are clamouring against the imposition of tolls on entrance into the profession—they tell us of the hardship, the iniquity, the obstacles they put in the way of poor merit. But high as they may be, cruelly as they may keep out the very deserving *and* the very poor, they are not so enormous, nor yet so cruel, as to bar the ingress of well-informed footmen, and lacqueys of certificated professional acquirements.

Can any one doubt, does any one doubt, that the profession is overstocked? Look down any street, when the gas-lights have superseded the day, and count, if it be possible, the green and red bottles, the blue and bright lamps. Go to any medical advertiser's office—cast the eye on the wrapper of any journal—and the applicants for practice, the hungry expectants of fees, absolutely mob you. How many throbbing heads, how many aching hearts, are engaged in the struggle for bread in the profession—how many repent that their friends were tempted to put them into it—and how many actually engaged in it look with dismay on the annual shoals of young men that enter it. Yet this is the state of things that friends of the profession would perpetuate and extend. What will be the result if the present system is continued? Just such applications as the advertisement we have quoted. Footmen will by-and-by make it a regular item in their qualifications, that they have been bred as "reg'lar sawbones." We only hope the qualification will be appreciated.

A contemporary asks how it happens that the profession is deemed low in the social scale? The answer is obvious. Admission into it is easy—numbers are consequently admitted—those numbers breed competition—competition knocks down professional remuneration, and gives birth to professional tricks—the arts generated by necessity, the low practices, the shabby appearance bred in the same hotbed of meanness and infirmity, degrade the professors of such a science, and sink it in the world's esteem.

The question is whether the matter shall be made worse, or a vigorous effort shall be attempted for the purpose of making it better. Make it better, say we—make it worse, say the out-and-outers. These Laputan sages care for nothing but their abstract principles. If the profession complain of being pinched and pauperized, "that's low" urge the *feelosofers*. "True *we* like to drive our team—true we have no objection to a good house and a powdered man, (we do not take medical valets on principle)—true we have no objection to get up in the world when we can—but with you it is another matter. You are a liberal profession—you should be above the low desire of ranking with gentlemen, and being thought such—you should feel the "dignity of human nature," and a little reflection might tell you that it is enhanced rather than diminished by a rusty coat, and a scant pair of breeches. Good friends, believe us, you are wrong to reject the great advantages we offer you—the pre-eminent merit of belonging to a profession which looks down upon the vain distinctions of aristocratic pride, and fraternizes with every noble son of a tinker or a tailor, who has scraped up his knowledge by the unassisted force of his own genius."

Medical practitioners of England, see the fate of your sons and your successors. In their hungry contests they may anticipate the fate of the Kilkenny cats, and eat each so effectually as not to leave even a tail behind.

SWALLOWING PINS AND NEEDLES.

One of the most remarkable cases of this sort ever seen by M. Dupuytren, was "that of a woman, who in consequence of swallowing an incredible number of pins and needles, had become frightfully thin, and was obliged to keep quite still in bed, from the acute pain which was caused on the slightest motion, by the needles and pins, which made their way out from every part of her skin. I opened more than a hundred collections of pus in this woman, at the bottom of which I always found one or two needles or pins. On the surface of this unfortunate person's body there was always fifty or sixty abscesses or tumors caused by the presence of as many of these foreign bodies; which, when added to the number of those which nature was not yet strong enough to drive towards the skin, formed a fearful sum total. It is easy to see that if the presence of a single one of these foreign bodies makes motion difficult and painful, so great a number must bring on a general debility, continued fever, and fatal marasmus; and, in fact, the woman of whom I am speaking died in a hectic state. When her body was opened, several hundred pins and needles were found spread throughout the various organs, the limbs, the cellular tissue, and the muscles; in short, in every part of the body."—*Med. Gaz. Feb.* 23, 1839.

PRACTITIONERS AT HOME AND ABROAD.*

"The Parisian physician may be content with five francs for a service for which the English physician, though perhaps of inferior eminence and talent, would receive his guinea, and all other classes of practitioners may be proportionately remunerated; but the seemingly great disparity is soon compensated by the difference of expense at which the two are obliged to live. If fees are low, so are rents, and taxes, and provisions; and if a man is paid well, he is expected to make a good appearance. By this compensating arrangement, practitioners of both countries probably live up to their income, and occupy about the same general station in society."

We are inclined to doubt this. Many more English physicians and surgeons acquire fortunes than French. We do not mean that the sums saved by the former are only absolutely, but they are also relatively, greater. The guinea fee does more in every way in England than the five franc (a rather high fee) does in France, and every body knows that the French doctor is very much looked down on in society. Too often he lives in a garret, smells of tobacco, and is thought little better than *canaille*.

Some of our contemporaries have talked much of late of the advantage of making British practitioners well acquainted with Continental medicine. What stuff Continental medicine is made of may be judged by the description we shall quote, given us by one who is rather a friend to it. Speaking of the German Journals he says:—

"We see every day, communications to their periodicals of practical medicine, which would scarcely do credit to our nurses: the most crude ideas of the influence of remedies—the exaltation of some of the most inefficient to the rank of the most useful—the praise of many which experience has elsewhere long proved to be inert—and confused and disorderly formulæ—afford a fair idea of what a medical periodical would have been in England two centuries ago. We speak only of the writings of the mass of actual practitioners, more of whom write in Germany than in any other country."—*Ibid.*

And are the French better? It needs no ghost to tell us they are not.

---

* Med. Gaz. June 8, 1839.

EXTRA-LIMITES.

Dr. Furnivall on the Ætiology and Treatment of Phthisis,—in answer to a Critique in the British and Foreign Medical Review.

Sir, *Hertford, May* 22, 1839.

May I beg the favour of you to insert, in your Number for July next, the following observations on a Bibliographical Notice, which has lately appeared in the British and Foreign Medical Review, of my Practical Essays on the Treatment of Consumptive Disorders, &c. I should have addressed myself to the Senior Editor of that Review, had I not been warned by what has recently occurred to Mr. Lizars, from whose statement, it appears probable, that if I had appealed in the name of justice, for an insertion of my Strictures on the wretched scribbler's tissue of misrepresentation, I should have been asked for payment. To string together foul misrepresentations, or biting calumnies, in order that the traduced writers may be anxious to pay for the insertion of their vindication, may be one way of getting a little money—but it is not a very respectable one. Is it that this Editor, in default of a satisfactory circulation of his Quarterly Galimathias, has adopted for his motto, Rem, quocunque modo rem, and for his rule of conduct:—

> Fear not to lie, 'twill seem a sharper hit,
> Shrink not from calumny, 'twill pass for wit.

The only number of this Review that I have seen, or haply ever shall see, is No. 14; but, after your statiscal calculation, and clear exposure (*see Medico-Chirurgical Review*, July 1838) of the wretched system of puffing, and of the title-page trickery—in promise, mighty, in performance, nothing—which has been pursued by this worthy and his colleague, one might have supposed that they would have been more cautious in throwing stones at other people—for these barking curs have by this time, it seems, had their ears well torn—but no, it is to be feared, that the same conceited vanity which has deluded them into setting themselves up as censors of others, will unhappily induce them to go on in their present miserable course of "cushioning, garbling, or positively misstating the opinions of writers" whom they may review, while they will also continue to "retail their own peculiar crotchets, or vent their *interested pique*, under the garb of impartial and conscientious censors of truth."

No man is more disposed to defer to sound and impartial criticism than myself—but an infamous system, such as this is, ought to be put down: and when periodical depredators like these men, under the disguise of critics, infest the highways of knowledge, to attack the peaceable traveller, and exult in any dismay which their assault might occasion, I for one will say—

> While these are censors, 'twould be sin to spare;
> While such are critics, why should I forbear?
> Why not, in truth, the gauntlet cast at once,
> To Scotch Marauder, or to Southern Dunce?

Reviewers are but individuals, and ofter very obscure ones too. The scribblers set themselves up to examine and denounce, without proof given, the claims of other writers—what will become of them when their own claims are examined? What right have they to seat themselves in the chair of criticism? Are they not self-called-for and self-appointed, or else, are they not the mere literary hacks of a bookseller's enterprize? Can they prove that such a publication as theirs was wanting? Can they prove that they effect any more good to our pro-

fession than your long-established Journal has always done? Can they prove that they effect any good at all, which is not much better done in your periodical? Does not the very number of books, which they profess every quarter to review, give evidence that those who take in their Review must be deceived?—for no men can effectively perform what they promise to do within the time and limits proposed by them. For myself, I should have pursued the even tenor of my way, neither roused into reply nor excited into recrimination, by my critic's one-sided attack—for two reasons—the one, that I am, at all times, disinclined to acrimonious and needless controversy (needless, because truth will always make its own way, in spite of all opposition)—the other, is, that I feel I shall be serving the interests of my critic, by pointing attention to his little-read pages—still, at the risk of "throwing a cruel sunshine o'er the rogue," I have resolved not to allow his assertions to pass uncontradicted—lest, if I did so, I might be considered as acquiescing in their correctness. I have, in addition, the important object in view of pressing upon my professional fellow-labourers—upon practical men—the value of the system of treatment, taken as a whole, which I have adopted, and which, I believe, will lead to more successful results than have been hitherto observed.

That time, and the cautious experiments of others, may prove the soundness of my directions, I sincerely hope—in the meantime, I can only urge to the trial—and say, again and again, his utere mecum.

My critic commences his attack very insidiously, and not daring to make an open charge of improper motive, he confines himself to an insinuation as dirty as the source whence it sprung. He then charges me with want of novelty. Now, supposing this charge were true, has this Reviewer yet to be told, that time may be much better employed in learning how to use our old remedies than in seeking after new—in consolidating and improving what we already know, rather than in running a wild-goose chase after a philosopher's stone, in the shape of novelty?

Did I boast of novelty or originality? No. Had my Reviewer done me but justice, he would not have dishonorably suppressed that part of my Preface, in which I stated "that, although the results of practice which I was about to publish, had been worked out by myself, and were so far original, yet, as I had not lately had extensive opportunities of professional reading, I doubted not but that all I had to state, must probably enter into the aggregate of received or recorded opinions, as it may have sprung out of them." Oh! gentlemanly Reviewer!!

My Reviewer's next charge would seem to many, highest praise—namely, that my little practical work may be regarded and used as an abridgement of *two Treatises*—one by Dr. A. Combe on Hygiene, the other, by Sir J. Clarke on Consumption—although it is said, that I have only slightly referred to the former, and not mentioned the latter at all. This latter charge, if it were true, would touch me sensibly; but, with respect to Dr. Combe's work, when I took one extract from it, and I took but one, I acknowledged the obligation specially—and is it not too bad that the Reviewer has again wilfully and dishonestly suppressed, indeed has not even alluded to these words at page 6 of my Preface—"The hygienic precepts have been succinctly compiled from the *numerous* writers, *British* and *Foreign*, who have published on Hygiene." He has, moreover, suppressed the special, very important, and little attended to, application of a certain part of hygienics to the pathological states, afterwards described by me. With respect to Sir J. Clark's work, I beg to inform the Reviewer that I have never seen it, still less perused it—but I have seen it advertised as a Treatise on the Treatment and *Cure* of Tuberculous Diseases. I have no more knowledge of it than could be acquired in a perusal of a good analytical critique on it, inserted, in one of your numbers. I fear my Reviewer's morality is of so low a nature, that he will hardly give credence to this assertion, because, he may think it suits my interest to make the avowal—if so, gentlemen can have no argument

with such a man—for him, honor, and truth (which indeed ought to be but another name for honor), and the courtesies of polished life, exist in vain. After a careful perusal, not to say study, of the works of Bayle, Laennec, Andral and Louis, I felt that the only way to arrive at sound practical results, was to study for myself, at the bedside of the patient, and not incur the danger of bias from any one.

My Reviewer then seems to talk in a patronizing Malvolio strain—that "but for one unfortunate pretension" (to which I shall allude anon) he—no—"we are not sure but we might have *quietly* recommended Dr. F.'s little book to the class of *general readers*, without any depreciating criticism"—having previously said that "the small volume contains much that is true and valuable, in regard to the preservation of health and the prophylaxis of disease, and will be useful," &c. The exquisite magnifico!! What shall I do, now that I am deprived of the light of this scribe's patronage? Really, Sir, this fellow's self-conceit were enough to move one's wildest laughter, if it had not been accompanied with such foul suppressions and misrepresentations. Has the British and Foreign Medical Review any general readers?—one should think it unlikely:—would then his praise have sold a single copy? "Self-conceit doth make a rare turkey-cock of him—how he jets under his self-advanced plumes!" As Pope says—

Whatever Nature has in worth denied,
She gives in large recruits of needful pride.

Sir, if my work really be so valuable as he describes it, it was his duty as a Reviewer to have recommended it. Perhaps he is determined to give no praise, except to his own friends.

"Nul n'aura de l'esprit, hors nous et nos amis."

And now, Sir, to the Title-page. I assert, in the face of the Reviewer, and, with the utmost deference, before the whole profession, that I believe the allegations therein to be perfectly well founded and as well proven as the nature of the malady will allow them to be. But, first, let me protest against the present general well-known tendency amongst medical men, to despair in the treatment of Tubercular Consumption—the word success, it seems, is to be tabooed, notwithstanding the revelations in morbid anatomy—what is, what must be the consequence? The consequence must be, a relaxation or cessation of those efforts to cure this disease, which are indispensable. The road to success has never lain through despondency or despair. Banish the word success from our mouths, and the thing itself, as applied to this malady, will be banished from our bosoms. What right have we to assume that a Beneficent Diety may not grant to persevering efforts, a sure knowledge of the means whereby a cure may be effected. Mais revenons à mon mouton. My Reviewer says, I have not given proof of "cure properly so called." Now, the truth-evading scribe is here quibbling upon words, and is moreover putting words into my mouth, which I disclaim. My pretensions are confined to successful treatment, as distinguished from "cure properly so called." I restrict myself to the support of my patient under the disease, to conducting him or her through the attack without loss of life, and, in the earlier stages, to the prevention of an attack that may have been threatened. I am more a man of things than words—res non verba quæso—but I see and feel that a difference exists between the words, successful treatment, and cure properly so called. At least under that impression I have written. I have described the cases in which I should entertain hopes of success, and I have not omitted to mark down, though hastily, a number of exceptions, which form but too long and melancholy a list of incurables. My Reviewer says he has read my book attentively—if so, he has read page 10 of the Preface, and elsewhere in the work—yet, not a word does he say thereupon. This is not fair.

The Reviewer, "fragili quærens illidere dentem," fixes on what he thinks the weakest point, and denies, *with sorrow*, that I have adduced satisfactory evidence of phthisis pulmonalis, in its early stages. Well does he know how easy it is to bring such a charge, and how difficult it often becomes, so to rebut it as not to leave a peg, whereon to hang a doubt—and here again this uncandid scribbler, this unjust judge, has suppressed these words at page 191: "In practice, all the evidence we can adduce, exclusive of the post-mortem appearances, is and must be, of a negative character—for all we can say is, that we have had patients suffering with all the usual signs of tubercular deposit, who have recovered their health without going through the stages of softening, &c." The diagnosis which I have given of phthisis at this stage is corroborated by Mons. Louis, and every other practitioner of experience; and my professional brethren will agree with me, that when a person comes to the medical man labouring under the symptoms described at page 148 of my work; when there is further corroboration from the previous history; and there is an hereditary tendency—we shall hazard little, if we make up our minds that a case of tubercular consumption is before us, and we shall *do a great deal* if we can relieve our patient from his threatening symptoms. The pictures which I have drawn of symptoms have not been extracted from books; but have been taken at the bedside and prescribing table.

The Reviewer says, that when evidence has been given in my work, both of the existence of phthisis, and of successful results—which latter, he chooses to term "so called cure"—this special pleader evades the difficulty by saying that the cure is recent, &c. Finally, he slurs over my treatment—says it is common: now so far is it from being common, that although the medicines prescribed are all long known, I believe it is, when taken as a whole, and applied to the pathological states described, very different from the routine, and in several respects, quite peculiar. The principles of the treatment are not common—my use of mercurials is not common, for they are usually strictly prohibited in phthisis—my mode of sparing the strength and of checking the colliquative perspirations is not common—my use of soda is not common—my reliance on ipecacuan in some cases of hæmoptysis is not common—the way in which I treat amenorrhœa in phthisical habits is not common—and my suggestion as to the treatment of *obstinate chlorosis by emetics of muriate of soda, with my reasons at page* 221, together with my treatment of opacities of the cornea, and of strumous conjunctivitis, by the external use of iodine, are, I submit, novelties highly worthy of trial. But, Sir, novelties or no novelties, I have no hesitation, in the full strength of an honest conviction, to repeat, that I believe my title-page contains no assertion which has not been as fully borne out as possible by facts, and by facts too published in my book.

Permit me to conclude with a few remarks on the probable proximate morbid condition in the phthisical diathesis. It is of no practical use to give this condition a name, and call it tuberculous cachexia—we want to know its nature if we can. Theory is notoriously dangerous ground to tread upon, and few persons can be more jealously watchful against the bewildering yet fascinating encroachments of hypothesis upon the human mind than myself—still there is no wisdom in continuing the old mill-horse round in treating this malady; if any success is to be expected, it can only be found by varying the present nearly uniformly fatal system of therapeutics in this disease. In my Essay I have pointed to *facts* alone—for the *practice* there recommended is *quite independent, yet corroborative* of the proposed theory.—See pages 172 et sequent.

It long ago occurred to me, that the proximate morbid condition in the phthisical diathesis is probably a fulness or congestion of the great venous sinuses—especially of the pulmonic—and that this state would seem to be caused by defective energy of the organic system of nerves; whence would result an imperfect performance of the functions of the capillaries, cutaneous, pulmonic,

and hepatic. We find accordingly the indicia and proofs of these states, in the obstinate coldness of the extremities, the chilliness and almost exsanguine state of the skin, in the frequently attending costiveness, and in the cough and dyspnœa, with its accompanying depression at the præcordia and sternum. This state forms the condition of persons who are in delicate health, or who are threatened with consumption. I have denominated it the venous congestion of the premonitory stage; nor is this merely a name—for it points to practice. This state may be accompanied with many alarming symptoms—a quick pulse—dyspnœa—a dry cough—and even *loss of flesh*; for the final assimilation of the food is checked, if not stopped. This loss of flesh is sometimes one of the earliest symptoms, and may exist without any marked sign of thoracic disease. Under these circumstances, when exercise to a salutary extent cannot be taken, when healthy respiration cannot be performed, and when the great carbon removing auxiliaries, the liver and skin, do not act as they should do, one must not expect an efficient depuration of the blood—carbon will acccumulate—and more particularly it will accumulate where, by position, the lungs are least moveable, viz. in the upper lobes. Thus both a pabulum and a nidus for tubercular matter are afforded in this carbonized blood, which by its sluggishness of current is rendered additionally fit for morbid deposition. This tendency to venous congestion in phthisical habits, when it exists predominantly in the abdominal circulation, and portal system of veins, may give us a glimmering in explanation of the hitherto inexplicable connexion between fistula in ano and phthisis; and may shew how it is, that if we cure this fistula, without establishing after cure some system of prevention of disease, consumption often follows—a fact well known to practitioners. With respect to the existence of too much carbon in such blood, the only experiments which bear upon the subject, as far as I know, are those of Dr. R. Clanny—a physician practised in analytical animal chemistry. He submitted to analysis—20 ounces of blood, taken in vacuo from the arm of a young man labouring under phthisis—14 ounces contained one cubic inch of *free* carbonic acid gas; and from an analysis of 1000 parts, the following were the results:—water 787 parts; albumen coagulated at 160° Fahr. 95; colouring matter, 61; *free* carbon, 33; fibrin pressed and dried in the atmosphere, 19; *salts* and animal extractive. 5. Dr. C. made another analysis of the blood taken from a young woman highly phthisical, and there were found 31 parts of *free carbon*, with only 4 of *salts* and animal extractive in the 1000 parts.

Now if we compare this with healthy blood, we shall find an *excess of carbon* and a *deficiency* of saline matter in the blood of phthisical persons. The tendency of the former is directly sedative, while that of the latter co-operates sedatively by its deficiency of healthy stimulus. Accordingly we find debility, or (if I may so express myself) a lower grade of vital power, to be the constant characteristics or concomitants of the phthisical constitution. In nearly all the histories of tubercular deposition, we shall find that debility has been, in some way, previously induced, by exhausting discharges or diseases, scanty food, bad habits of life, &c.; while we shall also find, in many of the fatal cases, that death has ensued rather from the failure of the vital powers, than from the great extension of the disease, and its encroachment over the lungs causing asphyxia. How does a surplus of carbon affect the composition (chemical) of tubercular matter? It appears by the latest analysis, that this matter consists chiefly of albumen, with various proportions of fibrine and gelatine. Now albumen contains nearly 53 per cent. of carbon. Do not these circumstances form a tolerably strong chain of presumptive evidence to the effect, that the probable morbid alteration of the blood in phthisical persons consists in an undue predominance of carbon in it, and of carbon in a free state too? while at the same time there exists a deficiency of the usual saline stimulus in it.

The prophylactic, if not curative indications, become evident, to equalize the

circulation between the interior and the periphery—to restore the functions of the skin—to elicit an increase and more general diffusion of the animal temperature—to regulate the hepatic and other secretions—to try to alter the morbid condition of the blood. These are the objects to be *aimed at*, although we may not always hope for complete success.

It is in this stage that the system followed by many, of ordering low diet and of prescribing bloodletting and digitalis for the quick pulse, &c., is very pernicious; and almost sure, by the induction or increase of the debility, already existing, to add to the very evil we are endeavouring to remove. Judicious hygienic measures, with especial attention to the skin—mercurials, judiciously and cautiously administered—gentle tonics—counter-irritation—and *sodaic salts*, become our most useful means of treatment.

But, excluding cases of general tubercular infiltration, let us take a more advanced case, wherein tubercles have been already deposited—and further, let us suppose that they, like other unorganized bodies, have from the application of some exciting cause, begun to cause an irritation in the circumjacent pulmonary parenchyma, another kind of congestion then arises—the active sanguineous congestion of Andral and other pathologists. We then have a specific disease with its certain defined limits, and a general affection of an inflammatory nature. We now know, that if the tubercles have softened to any considerable extent, a way must be made for their exit from the affected spot; at the same time, we must take care to prevent the increase of the specific disease by an extension of the tuberculous matter around, in, and on the suppurating surface. Hence it is of primary importance to resolve this active congestion as soon as possible, and with the *least possible cost* to the vital powers; for I have little doubt, that many of the instances of rapid disorganization of the lung which are met with, originated in this way; namely, by an extension of the specific disease over the common suppurating surface, which the active congestion above alluded to had produced.

When this active congestion has been resolved, or when suppuration has freely set in, and by its continuance for a certain time has removed the inflammatory state, then our plan must be altered immediately, and a tonic plan instituted, though with the utmost caution and watchfulness. The practitioner must be always on his guard against intercurrent pneumonia or inflammatory complications which may occur at any time—and he will find, that some cases will require the lancet repeatedly, others not at all. In my hands, mercurials have enabled me often to dispense with bloodletting—while my mode of checking and stopping the exhausting perspirations will be found very useful. The difference between this mode of treatment and the present fatal one, of repeated small venesections, &c. is very great; and, with the utmost deference, do I propose its adoption by the profession in preference to the ordinary vague, uncertain, and empirical system.

Mais encore une fois a mon mouton. I will now leave my Reviewer to weave his quarterly woof of tinsel; and will conclude with telling him, that he will be very ill-advised if he do not decidedly change his mode of reviewing—that when he feels obliged to condemn, he had better always find room for a fair exposé of his reasons and evidence—that although he may be a parasite-writer himself, or a mere redacteur from the French, other persons may be practical writers—that the venom of the dart is contemptible without some little vigour in the bow—and that the morals of criticism are included in candour, modesty, and good breeding.

I am, Sir, your's &c.

J. J. FURNIVALL, M.D.

DR. OSBORN ON DROPSIES.

MR. EDITOR.—Since the publication of the second edition of my small Treatise on Dropsies, I have refrained from animadverting on any of the manifold observations, remarks, reviews and lectures which have appeared on the subject of coagulable urine, being convinced, much as I differed from several of them, that truth would at the end prevail. In this conviction I am strengthened by the late publications of Drs. Christison and Rayer, who, although proceeding on different paths, yet tend to unite at the point to which I contended the original proposition of Dr. Bright would ultimately be extended, namely, that albuminous urine is produced by, and is therefore a symptom of, diseased kidney.

It were well if those who use the word functional as opposed to structural would previously give a definition, and state if they mean by it anything more than temporary or of short duration as opposed to permanent, and if so, what it is. Is ptyalism a functional affection of the salivary glands because it is produced by apparently insignificant means and may last only for a short time, in any other sense than that of short duration? and can we conceive a gland to secrete in any unusual manner without some alteration in the state of the secreting organ which, however transient it may be, is yet structural as long as it lasts? To assert that ptyalism is a functional state of the gland, is merely to assert that it is a transient affection; but if from this fact, that ptyalism is sometimes only transient, we were, by availing ourselves of the ambiguity of the word functional, to jump to the conclusion that ptyalism is not an affection of the salivary gland at all, we should prevail with but few to agree with us, and yet a course exactly similar is attempted, by those who have endeavoured to disprove the connection between granulated disease of the kidney and albuminous urine.

There is no doubt that some have described kidneys as healthy although in the first stage of granulation. The only mode of avoiding this error is, by appealing to my test of injecting the kidneys. As the granulated structure is impervious to injection, this simple experiment ought always to be appealed to before a kidney which has secreted albuminous urine, is pronounced healthy. In proportion as the body of facts to prove the connection is great and indeed overwhelming, so ought the scrutiny to be cautious and severe, before an instance is admitted to the contrary. Instead of pursuing the investigation according to this obvious law of induction, some have shewed a singular avidity in collecting opposite facts which, even if well proved, can *now* be only considered in the light of exceptions to a generally true proposition. Those gentlemen have displayed (not scepticism, but rather) an eager credulity for such facts, in proportion to their rarity and consequent improbability. For them, the slightest *on dit* has been quite sufficient, as I could shew if I entered into details, while the strongest evidence, and especially that afforded by injection of the kidney, is necessary to prove what they require. The individual who asserted that he found a fly in the centre of a marrow-bone was justly called on for proofs more decisive than would be required in an ordinary occurrence, and, after all his efforts, there must have been doubts and misgivings on the minds of many, as to whether the surprising fact might not have arisen from *some mistake*.

I have all along admitted that the albuminous secretion, in some instances, occurs in a transient form, but, as such have not been compared with appearances of the kidney itself, they prove nothing as to the granular deposit, and only shew that the disease is not necessarily permanent, which I never meant to deny. The proposition which I think has been established is, that the granulated kidney always secretes albuminous urine, and that, when albuminous urine continues to be secreted up to the death of the individual, the granular structure is always found in the kidney. Let the exceptions to these propositions be

brought forward to the statical and numerical standard, and see if, in the whole range of pathology, there be any one symptom of an internal disease to which a higher degree of credit ought to be affixed.

My object however, in writing these lines, is not to express my continued adherence to the proposition now mentioned, but to clear myself from an error which Dr. Christison, in his late work, has attributed to me, and which, if suffered to remain uncorrected, would cause me to appear as one of those braggadocios, too common, alas! in our profession, who suit their statements to their own wishes or the prevailing tastes of the public. *Populo ut placerent quas fecere fabulas.* He says that I have alleged, in regard to dropsy, that I never failed to remove it, whenever the entire surface was restored to a perspiring state. Now Dr. Christison has herein (no doubt through inadvertence) omitted to state, that *I limited the above proposition to cases in which there was no complication with other diseases.* Now such cases are unfortunately by far the most numerous; the patients, in the great majority (compare Dr. Bright's, Dr. Christison's, and Dr. Gregory's cases in connexion with mine), ultimately sinking under comatose or convulsive affections of the brain, gastro-enteritis, bronchitis, or chronic inflammation of the peritonæum. *But when not thus complicated* (those are my words, and to which I adhere), the cases always terminated by disappearance of the dropsical swellings if general perspiration was established.

It is a very agreeable amusement to witness the contortions of authors suffering under the inflictions of their reviewers, and, next to the pleasure of reading a severe critique, is undoubtedly that of knowing how the unfortunate author *takes it.* An English clergyman of considerable celebrity has suggested the plan of a periodical, to consist of reviews of works by the authors themselves, reviews of the reviewers, and lastly the reclamations of enraged or disappointed authors. Although I have no great cause of complaint with regard to my little book, yet I beg to suggest, with great respect, that (a certain proportion of) the pages of this Journal would be well employed in affording authors an opportunity of explanation or of defence, when unjustly attacked. The necessity of free discussion and of freely balancing conflicting statements, is surely paramount in medical science, which depends so exclusively on facts. If I were allowed to review myself in my second edition, I should have brought forward many topics which appear to me of far greater practical importance than that now adverted to. I fear that I have already trespassed too far on the patience of the reader, but not wishing to be handed down in the durable pages of Dr. Christison and of this Journal as a medical Thraso, and the author of such an unwarrantable statement as that every case of dropsy in which perspiration occurred was followed by cure, I shall feel obliged by being allowed the opportunity of contradicting it, and am, Sir,

Your very obedient Servant,

26, Harcourt Street, Dublin, JONATHAN OSBORNE.
27th April, 1839.

MR. BARRON AND MR. PETTIGREW.

Pittville, Cheltenham, 26th April, 1839.

SIR,—I have been induced, at the suggestion of a medical friend, to transmit to you the annexed Copy of a Correspondence which I have recently had with Mr. T. J. Pettigrew, author of The Medical Portrait Gallery, and if, after perusal, you see no objections, I shall consider myself much obliged by the publication of the following Notice in some conspicuous part of the next Number of your Journal. I have the honor to be, Sir,

Your most obedient Servant,

Dr. James Johnson. THOS. BARRON.

"*Note.*—A Correspondence betwixt the Representative of the late Mr. William Barron and Mr. J. T. Pettigrew, has been sent to the Editor, relative to an acknowledged error in the spelling of his father's name in a Memoir of Dr. Baron in the first volume of 'The Medical Portrait Gallery;' and as Mr. Pettigrew has refused to correct the mistake, by the publication of an explanatory note, on the ground of its being a deviation from the established order of his book, the Editor is authorized to state that the alteration in the spelling of Mr. Barron's name was not authorized in the Memoir above-mentioned."

☞ As the Correspondence is too voluminous, and cannot be interesting to any but the parties themselves, we have limited ourselves to the "*Note*," which contains the pith of the whole.—Editors.

On the Advantages of a Speculum Cushion and Cylinder. By *J. L. Fenner*, Esq. M.R.C.S. Pentonville.

[*For the Medico-Chirurgical Review.*]

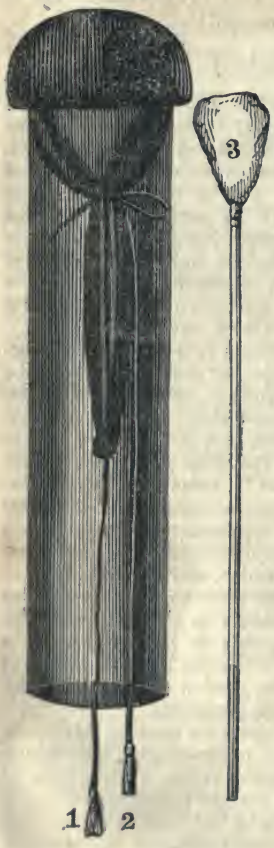
One of the most important modern improvements in the art of healing, in this country, is the departure from the conjectural mode of treating obstinate diseases of the uterus, and the adoption of physical examination by the speculum, so as to bring the various changes which occur in that organ within the scope of ocular examination, and enable them to be studied with as much accuracy as the opthalmic surgeon displays in the investigation of his peculiar cases. The advantages of the speculum uteri arise from the same indisputable principle which has ever been acted on in the practice of opthalmic and general surgery. By its employment cases which had been previously mistaken or overlooked—sufficient in number and importance to silence the abettors of the conjectural system of treatment—are daily becoming revealed in their true character.

On the introduction of a comparatively new instrument into the *private practice* of medical men, it might have been naturally expected that there would be a variety of opinions relative to the form of the instrument, and that each practitioner would extol that with which he was most conversant, without considering the respective merits of each, or what desideratum still remained to be accomplished by the inventive faculty in either one or the other of them. Hence Ricord's two-bladed speculum is the *only one* adopted by some; but this instrument is made but of *one size* for *every case*, and, moreover, affords not the least protection to the surrounding parts when caustic applications or leeches are used. The three and four-bladed specula are severally extolled, and are liable to the same objections. The metallic tube of Recamier, and its imitations in glass, find their advocates also; these possess the anatomical absurdity of gradually increasing in circumference towards the handle to at least twice the size of the end in contact with the os uteri Thus only an imperfect view is afforded of a very small portion of the cervix uteri, while the large diameter of the speculum is preposterously applied to the perineal portion of the vagina, the part the least disposed to dilate, and most sensitive of pressure.

A tube of glass, or German silver, or of cast-tin tube, two lines in thickness, if made of *the same diameter throughout*, possesses every advantage of the various bladed specula; and if the difficulty of passing, without giving pain, a tube of sufficiently large size to expose the whole extent of the cervix uteri be obviated, it must be superior to any other form of speculum, being free from the objections already stated. Without the addition of artificial contrivance, the introduction of such a tube of sufficiently large diameter would be attended, in many cases,

with pain, probably with injury. For the purpose of using a tube of requisite size with facility, and without pain, I attach an air-cushion in such manner that its soft elastic projection might previously produce dilatation, and, by overlapping, might protect the parts from the pressure of the edges of the tube, as seen in the accompanying sketch.

Small bladders, or the crops of poultry, partially distended with air, and disguised by being stained with orchil, answer the purpose of the cushions, and can readily be procured. The cushion is formed by twisting the depending portion of the bladder so as to force the air into its superior part, and then tying it with a silken cord in a slip-knot, leaving the end long enough to extend below the bottom of the tube, (*fig.* 2,) as represented in the sketch, ready for introduction, it is to be smeared with some unctuous substance, and then, being held in the right hand, the cusion is to be applied to the vulva with firm but gentle semi-rotatory pressure, and very gradually passed on in the direction in which the cervix uteri has been previously discovered, by the taxis, to be situated. As soon as the speculum, with its cushion, has passed the perineal portion of the vagina and has entered the pelvic cavity, the cord (*fig.* 2.) is drawn to untie the slip-knot, and enable the air which distended the upper portion, and formed the cushion, to rush into the depending part; when, by means of the cord (*fig.* 1.) the tube is left clear, by the bladder being withdrawn, disclosing a circumference of the os and cervix uteri proportionate to that of the tube.



The speculum cushion was invented for the especial relief of cases of irritation and inflammation, which thus may be examined without producing pain, and a consequent increase of symptoms. In cases where little irritability exists, I adopt a more simple invention, but upon the former principle of producing previous dilatation before the edges of the tube press on the vaginal structure.—A piece of box-wood of two inches in length is, by a turner, accurately fitted to the inner edge of the tube. One half-inch of the end is conically sloped to a rounded extremity, which projects during the introduction of the instrument, to dilate the vaginal structure before it comes into contact with the edges of the tube. The thickness of the edge should never be greater than two lines; and, if rounded, its obstacle is scarcely perceptible to the patient. By boring a hole in the other end of each cylinder, a common handle may be used for various sizes, which may be removed when not in use. I trust that this will be rendered sufficiently intelligible by looking at the former sketch. The part overlapping the edges of the tube is supposed to be removed, and the cushion to assume a more conical form. Where the slip-knot appears may be supposed to be the part of the cylinder where the hole is made to receive the common handle; and parallel to

this, if the stem (*fig.* 3) be the handle, the cylinder may be removed as soon as the tube has passed the perineal portion of the vagina.

My speculum case contains tubes of *three sizes two lines in thickness, and five inches in length.* The diameter of the smallest size which I employ is one inch including the thickness of the tube; the second is one inch and a quarter; the third measures one inch and a half in diameter. Besides the advantages of introducing by this mode the tubular speculum, with facility and without pain, and gaining by it every possible information, it possesses peculiar intrinsic merits such as the following:—The whole extent of the mucous coat of the vagina can be explored most accurately, and passed in review under the eye as it is pressed into the cavity of the tube. I lately attended a case of leucorrhœa with one of the most able advocates of Ricord, and discovered, by means of the tube, three chaps on the posterior part of the vagina, which never could have been seen with a bladed speculum. The minor operations so frequently required in the treatment of diseases of the uterus, are also rendered more efficacious and safe by the use of the tube, which may remain a sufficient time without causing any pain. The application of nitrate of silver, ten grains, in a drachm of water—most useful in abrasion or ulceration of the os and cervix uteri—may be readily used. The injecting of the cavity of the uterus with the same solution, when the peculiar glairy discharge is seen to issue from the organ, may be readily accomplished, not by the instruments usually sold for the purpose, but by a silver canula fitted to a small bone syringe: the unimpregnated uterus will contain about half a drachm of fluid. Leeches to the os and cervix uteri, so valuable in congestive and inflammatory engorgement, and at the critical periods of amenorrhœa, and dysmenorrhœa, may, by the tube be advantageously applied to a large circumference; but where the os uteri is seen to be open, I would suggest the application of a piece of lint to prevent the ingress of the leeches, as troublesome though not dangerous symptoms would presently supervene.

In the above engraving I have given a sketch of a small mop or brush (*fig.* 3,) one of the most useful and convenient, though the most simple instrument for removing mucus and other substances from the os and cervix uteri, and enabling its structure to be clearly examined; and also for applying solution of caustic, &c. It is a skewer of wood, about six inches in length, having a piece of lint or wadding tied around the top. For the suggestion of this valuable appendage to the speculum case I am indebted to my talented friend Mr. Jones, of Lower Brook Street, whose indefatigable labours and cheerful diffusion of information on this neglected subject, entitle him to the gratitude of the profession.

It must not be concealed that there are *moral objections* against the promiscuous use of the speculum uteri strongly felt by several respected members of our profession who, consequently are opposed to physical examination. These objections are entitled to the utmost consideration. Those who are sincerely anxious to promote the objects of science in this department will see the propriety of adopting an established rule—never to undertake the examination of a patient unless a female friend be present, or in some part of the room. To public teachers and the talented editors of the medical press, I beg to commend the advocacy of the moral view of this subject.

Mr. Meryon on Diseases of the Knee-joint.

There is a morbid condition to which the knee-joint is peculiarly liable, which, inasmuch as it is usually of long duration, and resists the action of those remedial agents which are usually employed is often the cause, rather of vexation

than of anxiety; but in several cases which I have witnessed, the accompanying pain has been so severe as to excite some degree of apprehension both in the patient and surgeon. These latter instances I have noticed more especially in young females, who, from various exciting causes (an erroneous system of physical education not the most infrequent) have suffered greatly from constitutional irritation, which has eventually appeared to concentrate itself in the knee-joint, and to be productive of the various characteristics of acute inflammation: viz.—pain, redness, heat and swelling.

The character of the pain is generally described by the patient as being deep-seated, aching, and sometimes grating, as though the articulating surfaces of the joint were rough. This latter sensation is of course felt only when the extremity is moved. If there be a superficial pain it is generally referred to that part which is situated between the ligamentum patellæ and the course of the satorius muscle. The redness which I have noticed may have been produced in many cases by previously employed counter-irritants, but in most instances there has been a diffused blush over the whole surface of the joint, manifestly dependent on a congested condition of the capillary vessels. The sensation of heat is mostly referred to the deep-seated parts, and the swelling is unequivocally attributable to an accumulation of fluid in the synovial membrane of the joint. Sometimes I have imagined that the small bursa behind the lig. patella has been distended with fluid from a feeling of fluctuation and apparent puffiness on either side of the ligament; but in most instances the fluctuation is too widely diffused to be owing to that cause simply.

The general health may or may not be much affected; but constipation of the bowels succeeds as a matter of course from want of exercise.

Mechanical injuries done to the knee are exceedingly apt to leave all the foregoing, symptoms, and in very many cases they are not in the least degree influenced by the usual curative agents which are generally employed. The immediate effects of such mechanical injuries are doubtless most philosophically and efficiently treated by leeches, &c.; but as all the symptoms frequently continue in spite of the frequent repetition of such remedies, together with long confinement and absolute rest, it becomes a matter of no small importance to have a remedy which shall effectually subdue them.

Such remedy may, I apprehend, be confidently looked for in galvanism, applied as I will hereafter describe; but being still engaged in collecting materials for the determination of those morbid conditions which may be relieved by the application of the remedy in question, I refrain at present from discussing its modus operandi, trusting to some future opportunity of elucidating this point when I shall have determined more satisfactorily the exact amount of influence it may have in producing the various results which I am about to describe. My object now is to make known the *invariable success* which I have had in such cases with the hope that the means whereby such result has been produced may be made more generally useful.

Miss B. æt. 17, of Bourn in Lincolnshire, had in the Autumn of 1836, an attack of inflammation of the knee-joint, unprovoked by any previous injury. For this affection, leeches and blisters had been repeatedly applied during the Winter, and medicines had been given with a view to improve the general health; but with little or no benefit. In the summer of 1837, she was sent to the sea-coast to try the effect of sea bathing, and returned without the least amendment. In Nov. 1837, she was sent to town and placed under my care. At this time the knee was so much swollen as to present a globular appearance, and on each side of the ligamentum patella a distinct fluctuation was to be felt extending over a considerable surface on either side—the pain was deep-seated and very acute, so much so as frequently to prevent sleep. The bowels naturally costive had become obstinately so; requiring the most drastic purgatives to relieve

them, and the general health was much impaired in consequence of long confinement.

Previous to the outbreak of any disease in the knee, and for some time after, there had been a considerable degree of bodily derangement which was benefited by medicinal agents; but with no accompanying amendment in the condition of the knee. On her arrival in London, I again attempted, in concert with Sir B. Brodie, the improvement of her general health, until the 17th of January 1838, when, from previous knowledge of the effects of galvanism, we agreed that it should be tried. From this time forth until the 20th of the following month I continued to galvanize her every alternate day—and at the expiration of that time the knee was perfectly well. The pain began to diminish after the first application. After the third or fourth, the bowels were relieved daily without the use of aperients, the swelling gradually subsided—as did also the feeling of heat; and at the time the remedy was discontinued the general health was very greatly improved, notwithstanding that little or no exercise had been taken in consequence of the very cold weather. Before the end of March, however, she had been to three or four balls, at which she had danced without the least difficulty, and from that time to the present the knee has been perfectly well, and the general health very good.

The foregoing was manifestly a case which every surgeon would unhesitatingly attribute to an erroneous system of physical education: the following appeared to be more dependent on hereditary tendency, inasmuch as it was also unprovoked by any violence, and several members of the family have suffered at various times from diseases of the joints.

Miss L——, æt. 30, was affected during the greater part of 1837 with a disease of the knee, accompanied with much deep-seated pain, a sensation of heat, and some inconsiderable swelling. In this case also the bowels had become torpid, the appetite diminished, and the general health much impaired. For these symptoms she had been treated medicinally for many months, and during the greater part of the Summer had been at Brighton and other places on the S. E. coast, but without the least improvement. On the 20th of November, 1837, I galvanized the knee, and continued to do it every alternate day until the 28th of December, when it was perfectly well, and appeared to be as strong as the other—the swelling had gradually subsided, and the bowels, as in the first case, had become regular. Still the general health was not so greatly improved, and continued more or less affected, till at last, in March 1838, the other knee became affected in the same way that the first had been; but not so severely—either as regarded the pain or swelling. On the 22d of April, I recommeded galvanism, and continued it every alternate day until the 22d of May, during which time the general health had been greatly improving; and when the remedy was discontinued, she was perfectly well—the knee in a sound and healthy condition—nor has there been the least return of the ailment since.

That diseases of this description may arise without any apparent cause, and be relieved by the same means, may be inferred from the following case.

——— Everington, Esq. had been complaining for six weeks or more of much deep-seated aching pain, unattended with swelling, but producing some degree of difficulty in walking. The case was just such as would induce almost every surgeon to apply leeches, and twelve were in fact directed to be applied by Mr. Liston; but the pain continued unabated. Feeling confidence in my remedy from frequent observation, I recommended the trial of galvanism, which was accordingly done. The second application produced very considerable relief. The third, I have every reason to hope, completely cured it, for I have heard nothing more of my patient.

The same symptoms which I have described as arising in the three former

cases spontaneously, are often the result of injury sustained in or about the joint, from falls, blows, and other mechanical violence.

T. Laurence, Esq. æt. 32, had, in 1829, been thrown from his horse and in consequence of falling on one knee had suffered much pain in the joint, with considerable swelling, heat and redness. Leeches were at first applied, but with no benefit; they were frequently repeated, as were also blisters, fomentations, lotions, embrocations, baths of every description, still no relief was afforded to the disabled knee. In this way he continued upwards of three years, occasionally walking a little, but with difficulty, and occasionally completely laid up. From long confinement his bowels had become constipated, and from the constant use of aperient medicines the stomach and duodenum were so much affected that considerable pain and flatulent distention were occasioned whenever he took his food. On the 18th of Jan. 1833, I recommended the use of galvanism, to which he readily consented, and every alternate day I made the application until the 9th of May following, when the knee was perfectly well. In February he was enabled to walk from his house in the New Kent Road into the City, which he had not done for three years before. Notwithstanding the local improvement in the knee the affection of the stomach and bowel continued for more than a year after, occasionally relieved as the knee showed a little disposition to irritation. In April, 1834, the pain and swelling of the knee recurred almost as violently as ever; the same remedy was applied daily until the 24th of May, when it was discontinued, the knee being quite well. Since that time there has not been the least disposition to any morbid action about the part. There is, I understand, from time to time a feeling of weakness in that joint, but no pain, and generally he can walk and ride as well as ever he did, and without feeling more fatigue or inconvenience in that knee than in the other.

T. Pix, Esq. of Peasmarsh, in Sussex, had a fall when shooting early in 1833, and hurt one knee, from which time until he applied to me, there had been considerable swelling, some degree of heat, a constant, deep-seated, distressing, grinding pain, as though the articulating surface of the femur and tibia were rough. On the 20th of April, 1834, I first applied galvanism, and on the 20th of May the knee was perfectly strong and well, and still continues so. In this case leeches and blisters had been repeatedly applied, but with little or no benefit. Since being so galvanised I hear that he walks as well as ever when out shooting, and runs in the cricket-field with as much facility and as little fear as though the knee had never been affected.

— Thomson, Esq. of Chelsea, applied to me in Oct. 1838, in consequence of an injury which he had sustained in the left knee on the Easter Monday previous whilst playing at trap-ball; the ball having struck him. On examining the part I found considerable swelling of the joint, some degree of heat and redness, and he described the pain as being deep-seated and of a grinding character. On the 10th of October I first applied the galvanic wires, and on the 26th of Nov. the knee was as strong and well as that of the opposite side. The remedy having been applied with occasional intervals of four or five days.

Job Heath, Esq. Borough, about four years ago, when attempting to make a sudden spring with a person on his back, felt a pain in one knee, and since that time he has experienced more or less pain but not much swelling. He had at first 28 leeches applied, and after them, two blisters; still the joint continued painful and weak, and has remained so up to the present time. I have now galvanised the part four times, and the pain has entirely subsided.

Such are the various conditions which I have witnessed from blows, &c. received on the knee, and in no instance have I been unsuccessful in relieving

them. There is yet another case of the many which I have noted, and which I am anxious to describe from the peculiarity of its origin.

Mr. P. clerk of J. P., Esq., of Bermondsey, after a long-continued course of mercury, during which he had imprudently exposed himself to wet and cold, became affected with a very painful disease of both knees, accompanied with considerable swelling and complete derangement of the general health. Such had been his condition for some years, and during some few months before seeing me he had been completely confined. On the 7th of October, 1836, with the concurrence of Mr. Travers, I first commenced to treat the knees with galvanism, and on the 12th of December he was well enough to walk up to my house; since which I have lost sight of him, but have every reason to believe that he is now quite well.

In the whole of the foregoing cases, except the last, wherein I gave sarsaparilla, I carefully avoided all adjuvants in the shape of medicine, that I might be the more satisfied of the effect of my remedy.

There are some few phenomena which present themselves during the application of galvanism which tend to show its influence over the secretions, and prove that its action is by no means entirely local.

During the time of its application a copious perspiration *generally* breaks out over the whole surface of the body, the action of the bowels is increased when the remedy is used as often as on alternate days, and notwithstanding the apparent excitement, the pulse is not increased either in frequency or strength.

The perspiration appears to be perfectly independent of the pain produced, for in the third case which I have related, as in many others wherein perspiration is excited with great difficulty, it has appeared most copiously under the influence of galvanism and where pain has not been so greatly complained of.

The influence of galvanism on the action of the bowels has been more or less apparent in every case which has come under my observation; but was more particularly illustrated in Miss B. who, previous to being acted on by galvanism, took two drops of croton oil with ext. coloc. almost every night. The same effect was made manifest in the case of a nobleman whom I galvanised from May to July, in 1838, for swollen ankles resulting from gout. There was in this case some considerable deposition of solid matter interfering with the action of the joints, and therefore the swelling was not much reduced. There was, however, very great improvement produced in the power of locomotion. But what struck me most was the perfectly regular action of the bowels during the whole time of the application of the remedy in question, and for at least two or three months after, although for years previously not a week had been passed without aperient medicine having been required. Once during the application there was a threatening of gout (stiffness and puffiness of the fingers of one hand) after some little imprudence in diet, but, contrary to the usual custom, all the symptoms vanished after the next application of galvanism; whether or no in consequence of such application I will not venture to say; but certainly, inasmuch as it produces no vascular excitement, I should not fear the action of such remedy during the inflammatory condition of gout.

Supposing that these phenomena might be dependent on the direct influence of the remedy on the nervous system, I have in two cases applied it in neuralgic affections. In the first, there was partial paralysis of one inferior extremity with neuralgic pains in the very muscles which were so paralysed, which appeared to be those only to which the anterior crural nerve is distributed. In this patient not the least benefit was experienced; on the contrary, the pain was rather increased.

In the second case, the subject of which was a young lady who had for many years suffered from tic douloureux in the superior maxillary nerve, the pain was

manifestly increased during the application of galvanism—and recurred as frequently as though no remedial agent had been employed.

MODE OF APPLICATION.

The instrument which I usually employ is a simple galvanic trough, containing 50 pairs of zinc and copper-plates—each pair being about two inches square. To excite galvanic action, I have used two fluid ounces of concentrated sulphuric acid diluted with two quarts of water. The surface to which the wires are applied I keep moistened with a solution of common salt (muriate of soda) in water. The application I generally make every alternate day, and for about ten minutes each time—not by allowing it to pass through in a constant stream, but by quickly applying and withdrawing the wires. During the first few days there will be a degree of stiffness experienced, but this very quickly subsides: and in no case have I continued the application (except in the two last instances which I have related) more than a fortnight, without very manifest benefit.

EDWARD MERYON.

4, Bolton Street Piccadilly.

TO THE EDITORS OF THE MEDICO-CHIRURGICAL REVIEW.

Aberdeen, 17th January, 1839.

Gentlemen,

I have just read in your Review of the Transactions of the Medical and Physical Society of Bombay two cases of dysentery, in which portions of intestine were voided per anum. The second case, by Dr. Inglis, is said to be more curious than the first, since recovery took place. It is reported as follows:—"J. T. ætat. 40, admitted into the European Hospital April 22d, 1835, stated that for six or seven days he had been suffering from bowel complaint, with frequent and often ineffectual calls to evacuate the bowels. There was tenderness across the abdomen on pressure, with a slight heat of skin, and frequency of pulse. On the 23d, the tenesmus continued and towards the evening an increase of pain of abdomen was relieved by an anodyne enema and warm bath. On the 24th, it is reported that during the night there had been six copious feculent evacuations without tenesmus, and during the day four evacuations, scanty and mucous. On the 25th, five evacuations, feculent and bilious; and at 8, p. m., there was expelled, per anum, a portion of intestine about seven inches in length. Says he was not sensible of its presence in the rectum, but first perceived it when partially expelled, and retained at one end by the sphincter muscle;—the gut appears to be in a putrid state.

The patient continued in the hospital with relaxed and irregular bowels till the 9th of May, when he left much improved in health. He was the carpenter of a ship, and had made twelve voyages to India. Health in general good, and, with the exception of one attack of cholera, had never suffered from serious disease;—there was tendency to constipation, but to no considerable extent; and there never had been suffering from any other affection of the bowels."

Now, as surgeon of the ship, (Prince Regent, Capt. William Bouchier, R.N.) of which the patient alluded to, John Tucker, was carpenter, I beg to say that he was received on board from the hospital on the 9th of May, the day before we sailed from Bombay, certainly a little improved in health, but far from being recovered, having never been able to leave his bed but for one short hour. He

lingered on with all the symptoms of chronic dysentery till the night of the 20th July, when he died from extreme weakness and emaciation.

I exceedingly regret that circumstances at that time prevented me from making a post-mortem examination.

You remark there may reasonably be entertained some doubts as to the facts of the above being actually a piece of intestine, since it is reported that the patient recovered. I saw the piece in question, and it appeared to me to be really a portion of intestine, but then he did not recover after voiding it as reported.

I am, Gentlemen, your obedient Servant.

DAVID FIDDES, Surgeon.

PURPURA HÆMORRHAGICA FATAL IN FIVE DAYS.

Mr. De B———, aged 18, came home apparently well on Friday, 21st Dec. and ate his dinner. In the night he was seized with severe headache and rigor; and next morning Mr. Hodding gave him some calomel and a black dose. Next day (Sunday) he had a severe rigor again, with violent pains in the limbs, and that evening the face got red, but without any petechiæ. The redness spread downwards, and petechiæ appeared on the chest, and ultimately over the whole body, in the most intense manner, they being in many places, so confluent as to resemble a black surface. The hæmorrhage commenced the next day (Monday) from bowels, kidneys, throat, nose, and even the eyes, to a most frightful extent. Sulphate of magnesia and well acidulated infusion of roses were given so as to clear the bowels, and acids were freely exhibited with the view of restraining the hæmorrhage, but to no purpose. On Tuesday morning the patient was seen by Dr. M. Hall and Mr. Hodding, and the case appeared to Dr. Hall to be a complication of malignant scarlatina with purpura hæmorrhagica. A grain of sulphate of quinine was ordered every hour with mineral acids. Dr. Johnson saw the patient at three o'clock, and afterwards at ten in the evening of the same day, with Mr. Hodding. The spectacle on this day, which the patient exhibited, was truly awful. The features were so swelled, and the face so covered with black coagulated gore, that no person could have recognized him. The blood was issuing from eyes, nose, mouth, bladder, and bowels. The skin was either black with confluent petechiæ, exhibiting extensive tracts of ecchymosis, or densely covered with dark petechiæ. The pulse was 120, and rather firm, in the morning—the intellect clear—the tongue rather pale, as were the fauces, where not covered with blood; and the fætor from the breath was scarcely bearable. The chest was sonorous throughout—the breathing not laborious—the abdomen soft—and the skin not much above the natural temperature. Some sulphate of magnesia was given this day, with the acid draughts, which cleared the bowels, and in the evening, as the pulse was flagging, the quinine was again resumed, with tincture of hop, beef-tea, &c. The blood still continued to flow from all the mucous membranes in large quantities.

At 10 o'clock on Wednesday morning, the patient was found in a still worse condition than before. The pulse was quick and intermitting—the blood issuing from all the outlets—yet he had slept some, and was able to get out of bed to the night-chair. Port wine was ordered every hour, with powerful mineral acids and quinine. At 4 o'clock the symptoms had rather increased, and at 10 o'clock at night he expired.

The pathology of this disease is involved in Cimmerian darkness. Is the fault

in the fluids, or the solids—or both? No one can answer the question. It is not a little mysterious that, in the course of a few hours, both the blood and its containing vessels should be so changed that every capillary vessel, on the external as well as internal surfaces, should pour out the vital fluid, as though it were oozing through a piece of thin muslin! Would venesection have been beneficial in the beginning of this terrible disease? I fear that it would not. A local hæmorrhage, as from the lungs or the stomach, may be mitigated by venesection; but it is a very different thing where the whole capillary system, inside and out, is allowing the blood to escape. In purpura hæmorrhagica, the flow of blood is not caused by mere *vis a tergo*, or the rupture of larger or smaller vessels in a particular locality; whatever be the pathological condition it is general and not topical. If plethora were the cause, surely the hæmorrhage would stop before all the blood of the body was drained off! There appears to be some analogy between this disease and malignant cholera. In the latter case the serum of the blood exudes through the capillaries of the mucous membrane of the intestines, until only thick tarry blood is left in the larger vessels. In purpura, the blood itself, red and white portions, exudes not only through the intestinal capillaries, but through all capillaries, till the patient dies of the hæmorrhage!

Until we know something of the pathology of the disease, whether in the solids or the fluids, there is little chance of discovering a successful method of treatment.

BIBLIOGRAPHICAL RECORD.

1. School Botany; or an Explanation of the Character and Differences of the principal natural Classes and Orders of Plants belonging to the Flora of Europe, in the Botanical Classification of De Candolle. For the Use of Students preparing for their Matriculation Examination in the University of London. By JOHN LINDLEY, Ph. D. F.R.S. Small 8vo, pp. 218, with numerous woodcuts, and a copious Index. Longman and Co. 1839.

2. Hints to Mothers, &c. By THOMAS BULL, M.D. Physician-Accoucheur to the Finsbury Midwifery Institution. Octavo, pp. 307. Second Edition, much enlarged and improved. Longman and Co. 1839.

3. A Letter to the Right Honorable the Secretary at War, on Sickness and Mortality in the West Indies; being a Review of Capt. Tulloch's Statistical Report. By Sir ANDREW HALLIDAY, M.D. F.R.S. &c. Deputy Inspector of Army Hospitals. 8vo. pp. 63. J. W. PARKER, West Strand. March, 1839.

4. A short Treatise on Typhus Fever. By GEORGE LEITH ROUPEL, M.D. Physician to St. Bartholomew's Hospital, &c. 8vo. pp. 301. London, 1839.

5. The Phrenological Journal, and Magazine of Moral Science, No. 59. April 1839. Edited by HEWETT COTTRILL WATSON, F.L.S. Simpkin and Marshall.

6. Lectures on Diseases of the Eye. By JOHN MORGAN, F.L.S. Surgeon to Guy's Hospital, and Lecturer on Surgery at that Institution. Illustrated by coloured Plates. Octavo, pp. 221. Highly, 1839.

7. An Inquiry into the Propagation of Contagious Poisons by the Atmosphere; and also into the Nature and Effects of Vitiated Air, its Forms and Sources, and other Causes of Pestilence; with Directions for avoiding the Action of Contagion, and Observations on some Means of promoting Public Health. By S. SCOTT ALISON, M.D. Octavo. pp. 219. Maclachlan, Ed. Whittaker, London. April, 1839.

8. Statistical Reports on the Sickness, Mortality, and invaliding among the Troops of the United Kingdom, the Mediterranean, and British America; prepared from the Records of the Army Medical Department, and War Office Returns. Folio, 1839.—"Presented to Dr. James Johnson by Sir James M'Grigor."

9. The Physiognomy of Mental Diseases. By Sir ALEX. MORISON, M.D. No. 10. Monomania, with Vicious Propensities. London, 1839.

10. Medical Notes and Reflections. By HENRY HOLLAND, M.D. &c. Octavo, pp. 628. Longman and Co. 1839.

11. A practical Compendium of the Materia Medica, adapted to the Diseases of Infancy and Childhood, with numerous Prescriptions. By ALEX. URE, M.D. &c. An enlarged Edition, containing simple Rules for the Diet and Regimen of Children, &c. Duodecimo, 1839. Sherwood and Co.

12. An Experimental Inquiry into the Laws of the Vital Functions, &c. &c. By A. P. W. PHILIP, M.D. Fourth Edition, greatly enlarged, both in the physiological and practical part. Renshaw, London, 1839.

13. A Series of Anatomical Sketches and Diagrams, with Descriptions and References. By THOMAS WORMALD, Assistant Surgeon, &c. Bartholomew's Hospital, and A. M. M'WHINNIE, Teacher of Practical Anatomy, &c. Quarto, Part II. Highley, 1839.

14. Mind and the Emotions considered in Relation to Health and Disease. By W. COOKE, M.D. Editor of Morgagni, &c. Octavo, pp. 56. (An Oration.) Longman and Co. 1839.

15. Total Abolition of personal Restraint in the Treatment of the Insane. With Statistical Tables, &c. By ROBERT GARDINER HILL, M.R.C.S. House-Surgeon of the Lincoln Lunatic Asylum. Octavo. Simpkin and Co. London, 1839.

16. Dr. Milner's Address to the Candidates for Degrees and Licences in the Medical Institution of Yale College, United States.

Dr. J. Knight's Introductory Lecture to the Course of Instruction in Yale College. New Haven, 1838.

18. Professor Pattison's Introductory Lecture, Session 1838-9, Philadelphia, 1839.

19. Outlines of Human Physiology. By W.P. ALISON, M.D. F.R.S. Third Edition. Blackwood, Edinb. 1839.

*** *In this Edition the talented Author has introduced all the most important facts which have been lately ascertained in this department of Science. We need hardly recommend a work which has so well recommended itself.*

20. Reflexions sur les Œuvres de Shakespeare. Hommage a la Societé d'Emulation pour les Lettres et les Arts a Paris. Par W. PATTISON HUNTER. Jan. 1839.

*** *We beg to return Mr. Hunter our thanks for this interesting Essay.*

21. Observations on "Oxygenous Ærated Water," as a grateful exhilarating Beverage, and as a Remedy in Debility, Depression of Spirits, &c. By C. SEARLE, Esq. M.R.C.S.L. late of the Madras Establishment. London, 1839.

22. Mr. James Law's Address at the First Anniversary Meeting of the Birmingham School of Medicine and Surgery.

*** *Clerical and pious.*

23. Report of the Royal School of Medicine and Surgery, Birmingham. 1838.

24. An Address delivered at the Birmingham Royal School of Medicine and Surgery. By VAUGHAN THOMAS, B.D.

25. The Warneford Prize Essay, (Birmingham School of Medicine,) on the Valvular of the Veins, anatomically and physically considered, &c. By THOMAS CLARKE RODEN, Student. 1839.

26. An Inquiry into the local, moral, and intellectual Condition of the Industrious Classes of Sheffield. Part I. The Abuses and Evils of Charity, especially of Medical Charitable Institutions. Royal 8vo. pp. 132. Longmans, 1839.

27. Case of Hydrophobia in Nottingham. By J. C. WILLIAMS, M.D.

*** *We fear this case will not throw any light on the invariably fatal nature of the disease, nor indicate any remedy.*

28. Experiments with the Wourali Poison. By Mr. WATERTON.

29. Answers to the Objections commonly brought against Vaccination. By J. ROBERTON, Esq.

30. Extracts from a Report made to the New-York and Maryland Iron Company, &c. By the Messrs. SILLIMANS. London, 1838.

13. Researches on the Development, Structure, and Diseases of the Teeth. By ALEX. NASMYTH, F.L.S. Octavo, pp. 165, with Plates. Churchill, London, May 1839.

11. Elements of the Practice of Medicine. By Drs. BRIGHT and ADDISON. Part III. Price 7s. Longman and Co. June, 1839.

33. The Accoucheur; a Treatise on protracted Natural Labours, suspended Animation in New-born Infants, and Uterine Hæmorrhage after the Birth of the Child; with illustrative Cases. By JOHN CRAIG, Surgeon. Paisely. Octavo, pp. 252. W. R. M'Phun, 1839.

34. The Transactions of the Provincial Medical and Surgical Association. Instituted 1832. Vol. VII. Churchill, London, June, 1839.

*** *We observe that the next anniversary meeting of the Association will be held at Liverpool, on the 24th and 25th of July of this year.*

35. Elements of Physiology. By J. MULLER, M. D. Translated from the German, with Notes, by W. BALY, M.D. Illustrated with steel plates and numerous wood-engravings. Part V. containing the Senses. (Taylor and Walton, London, June, 1839.) Price 4s. 6d.

36. Sleep and its Phenomena. An Essay By JAMES N. PINKERTON, M.D. Small 8vo. pp. 220. Fry and Son, London, June, 1839.

37. Outlines of Pathological Semeiology. Translated from the German of Professor Schill. With copious Notes. By D. SPILLAN, M.D. Small 8vo, pp. 220. Renshaw, 1839.

*** *We lately gave a Review of the original Work in this Journal, and think the Profession is indebted to Dr. Spillan for a translation in an economical form.*

38. A General Outline of the Animal Kingdom, and Manual of Comparative Anatomy. By T. RYMER JONES, F.Z.S. Part VI. June 1, 1839. Price 2s. 6d.

39. Supplement to the History of British Fishes. By WILLIAM YARRELL, F. L. S. Illustrated with Wood-cuts. In two parts. Van Voorst, Paternoster-row, 1839.

40. Practical Remarks on the Use of Iodine, locally applied in various Surgical Diseases and External Injuries. Illustrated by Cases. By JOHN DAVIES, Surgeon to the General Infirmary at Hertford, &c. Octavo. Longmans & Co. June 1839.

41. Selections in Pathology and Surgery; or, an Exposition of the Nature and Treatment of Local Disease; exhibiting new Pathological Views, and pointing out an important practical Improvement. Illustrated by Cases. By JOHN DAVIES, Surgeon to the General Infirmary at Hertford, &c. Octavo. Longmans & Co. June 1839.

☞ *Several Works have been received for review since the above list was closed.*

INTELLIGENCE, CORRESPONDENCE, &c.

The ironical praise of Animal Magnetism, in our Irish friend's letter, is at least ten months too late. The humbug is blown to the winds, and the hole-and-corner Saturnalia, which are now carried on, will soon follow.

We shall be happy to hear again from the "MARKET-HILL DISPENSARY," when any interesting matters turn up.

NEW YORK QUARTERLY JOURNAL OF MEDICINE AND SURGERY.

☞ The First Number of this new cotemporary is to appear on this day, 1st July, 1839, under the auspices of numerous and able Collaborateurs. We accept with pleasure the offer of mutual exchange, and shall be happy to introduce our young friend on all occasions. We see Mr. Churchill, of London, is the Agent in this our OLD WORLD.

THE

Medico-Chirurgical Review,

No. LXII.

[NO. 22 OF A DECENNIAL SERIES.]

JULY 1, TO OCTOBER 1, 1839.

I. PHYSIC AND PHYSICIANS: A MEDICAL SKETCH BOOK, EXHIBITING THE PUBLIC AND PRIVATE LIFE OF THE MOST CELEBRATED MEDICAL MEN, OF FORMER DAYS; WITH MEMOIRS OF EMINENT LIVING LONDON PHYSICIANS AND SURGEONS. Two Volumes, 12mo. London, Longman, Orme, and Co. 1839.

II. BIOGRAPHICAL MEMOIRS OF THE MOST CELEBRATED PHYSICIANS, SURGEONS, &c. &c. By *Thomas Joseph Pettigrew*, F. R. S. &c. &c. Price 3s. each Part.

IT would appear that the Profession are taking a warm interest in the lives and fortunes of medical men. Their biography comes to us in many shapes in Journals, in Transactions, in the monthly publication of Mr. Pettigrew, and in the volumes now upon our table.

At first sight such biography seems hopelessly barren. The practice of physicians and surgeons is but the application of a special art, and one man feels the pulse and looks at the tongue of a patient, much as any one else would do it. The great events which influence the fate and move the sympathies of nations do not turn on our actions—our science is unintelligible our professional feelings uninteresting to the mass—and our lives are only checquered with such events as are either common to all men, or wear that exclusive professional garb which shuts them out from public curiosity.

Nor is the public curiosity excited. Medical biography interests medical men almost alone, and judging from the sale of some recent works, it does not influence them very deeply. Yet it is a pleasant, as well as instructive contribution to the light literature of our profession, and something at least should be known by ourselves of the lives of those who have attained celebrity amongst us. It is astonishing how little *is* known. The names of our distinguished predecessors are familiar to us only through their works, and we are generally ignorant of the particulars of their career.

Every medical man who makes the least pretension to a cultivated mind, and who aims at being deemed a gentleman, should be fairly read in the history of physic, and tolerably conversant with the lives of its chief ornaments. To be neither is to pronounce the severest satire on his own art—to look on it as a thing of empirical experience, which one man practices much

like another, and is insusceptible of the dignity of history. We consider this, however, a false as well as a derogatory notion. The history of medicine teaches these important facts—that the science of medicine, like most other sciences, has been of slow growth, and has shared the fortunes of philosophy—and that its progress, though checked, has never been really arrested by the errors and follies of its professors. These facts are well calculated to encourage us. They may render us easy on the score of quackery. That never has exercised, nor ever will, any seriously injurious influence on medicine. Truth has nothing to fear from fraud—a temporary cloud may veil her, but her sun is sure to shine again.

Medical biography touches our personal feelings. We all have had, or are having, our struggles for success—we can all feel for the triumph or the failure of genius or of industry—we can all admit the uncertainty of public favor, and many of us may esteem it an useful lesson to learn how *that* has been caught. To all these feelings biography appeals—the aspirations of ambition are awakened by it and gratified—and the life of an illustrious man is seldom perused without the reader being rendered wiser, if not better than before.

On these accounts we have devoted some former articles to Medical Biography, and, as the subject is far from exhausted, we shall yet devote some more.

"PHYSIC AND PHYSICIANS," is the produce, as its nameless author tells us, of a hint in Johnson's Life of Akenside. It rather gives light sketches of both than a connected history of either. The work is in fact a sketch-book, as the titles of its chapters will show. They are thus intituled:—1, Antiquity of Physic, and Defence of Medical Men. 2, Eccentric Medical Men. 3, Early Struggles of Eminent Medical Men. 4, Celebrated Medical Poets. 5, Sketches and Illustrations of Medical Quackery. 6, How to get a Practice, or the Art of Rising in Physic. 7, Chronicles of Warwick Hall; and the Medical and Surgical Luminaries of the olden time. 8, Mad-doctors and Mad-houses. 9, Literary and Scientific Medical Men. 10, Medical Emigration. 11, Army and Navy Surgeons, and East India Company's Medical Service. 12, Sketches of Eminent Living Physicians. 13, Sketches of Eminent Living Surgeons.

From these Chapters we may pick at random, and select or withhold what we please. Our object will be to instruct as well as to amuse. Can we begin with any thing more agreeable than—

HOW TO GET A PRACTICE, OR THE ART OF RISING IN PHYSIC.

No doubt this is a *taking* subject. It has been recommended, says our author, to a young physician who wishes to get into practice, to start with a new theory. Attempting to prove that the blood does not circulate would ensure a great degree of notice, and prove highly beneficial to him. Were he to endeavour to prove the unwholesomeness of some favourite and common article of diet—the more startling and extraordinary the opinion the better—he would obtain an enviable degree of notoriety. He must be singular and eccentric in his manners;—it is a matter of indifference whether he be brutal, or polished and courtier-like.

"There are two ways, my boy," said Radcliffe to Mead, when the latter was commencing practice, "for a physician to treat his patients — either to bully or cajole them. I have taken the former course, and have done well, as you see; you may, perhaps, take the latter, and, perhaps, do equally as well." Skill in pursuits not very consonant to medical ones, now and then has a great effect in procuring practice; it has occasionally been found to have been of great use to affect fox-hunting, boxing, &c. Singularity fills the general run of mankind with wonder, and from wonder to admiration the transition is obvious.

A physician, he continues, should never affect ignorance of the cause of a complaint; he should place it in the pancreas, or pineal gland, if he has no other local habitation ready at the moment. Of course he must answer every question. A lady once asked her apothecary from what substance castor-oil was made; he, (more *au-fait* with the slang of the ring than with the science of botany, a hat or beaver being by the fancy termed a *castor*,) unembarrassed, said that it was made from the *beaver!* The lady was satisfied, and, no doubt, considered her medical adviser a quick and sensible gentleman. A patient was one day very anxious to know how long she should be ill: "Madam," replied the physician, "that depends upon the duration of the disease." "I am much obliged to you, Doctor, for your information," was the patient's wise answer.—Never readily acquiesce in any thing your patient or the nurse should say. "My doctor," we recollect hearing an elderly lady observe, "always assents to whatever I say: I think he must be a great fool." A physician should never omit to take his fee, unless he makes a practice of refusing the fees of clergymen.

Here follow two stories.

"A physician of Montpellier was in the habit of employing a very ingenious artifice to bring himself into notice with the public. When he came to a town where he was not known, he pretended to have lost his favourite dog, and ordered the public crier to offer, with beat of drum, a reward of twenty-five louis to whoever should find it. The crier took care to mention all the titles and academic honors of the peripatetic physician, as well as his place of residence. He soon became the talk of the town: 'Do you know,' says one, 'that a famous physician has come here, a very clever fellow, of high academic honors? he must be rich, for he offers twenty-five louis for finding his dog!' *The dog was not found, but patients were.*

A poor physician, with plenty of knowledge and no practice, imparted his troubles to one of his friends. 'Listen to my advice,' says the other, 'and follow it. The Café de la Régence is in fashion; I play at chess there every day at two o'clock, when the crowd is thickest; come there too; do not recognize me; say nothing, but seem in a reverie; take your coffee, and always give the waiter the money wrapped up in rose-coloured paper; and leave the rest to me.'

The physician followed his advice—he was in daily attendance at the café, when it was most crowded—sipped his coffee in quietness, and paid as his friend directed him to do. His oddity was soon remarked. The question was frequently asked, 'who is that grave gentleman? he always appears absorbed in his own cogitations.' His kind friend said to the customers of the coffee-house, 'Gentlemen, do not think ill of this man, because he seems an oddity; he is a profound practitioner. I have known him these fifteen years, and I could tell you of some wonderful cures he has performed; but he thinks of nothing but his books, and never speaks except to his patients, which has prevented me from becoming intimate with him; but if ever I am obliged to keep my bed, he is the

doctor for me.' The friend followed this course, varying the style of his panegyric from time to time, until all his auditors entertained a high opinion of the doctor's skill, and by this means he soon obtained an extensive practice."* 548.

It is a good thing to belong to some religious sect. Of course you are employed in it. The "*thee*" and "*thou*" of Dr. Fothergill, of London, was supposed to be worth £2000 a year to him at least.†

Dr. Mead was the son of a dissenting minister; and whenever he was called out of his father's church, which was often the case, the preacher would stop in the middle of his discourse, and say, "Dear brethren, let me offer up a prayer for the safe recovery of the poor patient to whom my son is gone to administer relief." Mead's father had as keen an eye to business as S. S. Hutchinson. The next is not a bad piece of advice.

"Be careful not to pronounce an opinion on any case, until you have gone through the usual routine of feeling the pulse, looking at the tongue, &c. An eminent court physician, visiting a noble lady from whose family he had received many shining marks of liberality and confidence, the following scene took place:—'Pray, doctor, do you think I might now venture on a slice of chicken, and a single glass of Madeira, as I feel very faint and low?' 'Most certainly, please your ladyship; I perceive nothing in the state of your pulse, or the appearance of your tongue, to forbid so reasonable an indulgence.' Her ladyship instantly rang the bell, and with more than usual peremptoriness of manner, desired the servant to order Sir ———'s carriage; then turning to the doctor, she addressed him nearly as follows:—'Sir, there is your fee, and, depend upon it, it is the last you shall receive from me, or from any of my connections with whom I possess any influence. I asked you a question, a serious question, Sir, to me, considering the very abstemious regimen to which I have so long submitted under your direction; and I think it full time to withdraw my confidence from a physician who delivers a professional opinion without any foundation, for, Sir, you must be perfectly aware that you neither felt my pulse, nor examined my tongue." 352.

In your instructions (we are still quoting) to your patients, be particular in giving minute directions concerning diet. This has great effect on the minds of old women, especially if their maladies are, in a great measure, imaginary. Give a list of what is to be eaten at breakfast, dinner, and supper, and you may depend upon being often made the subject of conversation, and you will be considered a very "clever doctor." A physician, in large practice, brought himself into notice, by always recommending the *left leg* of a boiled fowl; and upon our attempting to persuade the invalid that the left leg possessed no peculiar virtue, she was quite indignant, and exclaimed, that "so sensible a physician must know better than you."

---

* "Coleridge tells a story of a lady who had a husband not overburdened with brains, but with sense enough to hold his tongue when in company. His taciturnity was noticed, and on the subject being mentioned to the wife, she mysteriously observed, 'Dear Sir, he is always thinking of Locke and Newton.'"

† "A Quaker apothecary meeting Dr. Fothergill, thus accosted him, 'Friend Fothergill, I intend dining with thee to-day.' 'I shall be glad to see thee,' answered the doctor; 'but pray, friend, hast thou not some joke?' 'No joke, indeed,' rejoined the apothecary, 'but a very serious matter. Thou hast attended friend Ephraim these three days, and ordered him no medicine. I cannot at this rate live in my own house, and must live in thine.' The doctor took the hint, and prescribed handsomely for the benefit of his friend Ephraim, and his friend Leech the apothecary!"

We hardly think it necessary to communicate any further the directions of our author. They are made up of the usual recipes, often given, occasionally followed, and *never* (we are inclined to think) successful. For instance, the young physician is told:—It is a great point gained if you can visit the opera frequently; and be sure to instruct the messengers, when the performance is over, to vociferate loudly for your carriage. This is an effectual way of making you known, as a London physician and a man of fashion. Be regular in your attendance at church; and instruct your servant to call you out occasionally during the service. When you first start in practice, it will be of service if you can persuade your *carriage friends* to call often at your house. Always contrive to have a coach standing at your door on Sunday, as it is sure to attract the notice of the people as they return home from church, and will lead the public to believe that you are a practising physician. We believe we may venture to say that no man ever did get into practice by such arts—and we are pretty sure that no man ever will. Indeed it is the dwelling on such things as these that makes us doubt if the author of these sketches belongs to the medical profession.

Whatever may be thought on this score, scepticism itself must own conviction on reading the following letter. It is addressed by Mead to a young physician, professes to give him advice on the best method of succeeding in practice, and is perhaps one of the severest satires upon physic that has seen the light in our days. The letter is long, but no one will regret reading it.

"That which gives me great hopes of you (Dr. Timothy Vanbustle, M.D.) is your resolution to go on, and to push into practice at all hazards. Monsieur De Rochf observes, that there is nothing impossible if we have but the resolution to take the right way to it. Besides, you know *audaces fortuna juvat;* and therefore, above all things, let me as a friend advise you to take care of studying or endeavoring to know much in this way, since that will render you timorous and cautious, and consequently keep you back in your practice; besides that, the more you search the less you will be satisfied; and when arrived at the top of all, you may with Solon conclude, that all your wisdom (comparatively with real knowledge) is in knowing nothing. Whereas if you only *skim* the surface, you will go boldly on, and fancy your knowledge ten times more than what it really is. Thus then the great and principal thing you ought to be qualified with, is the *formula prescribendi*; for form is now the main chance, whether in law or physic, and without that, there is nothing to be done; this is the business, the *alpha* and *omega*, the all in all; some will succeed, and some won't; 'tis hit or miss, luck's all; you are paid, go which way you will. And now you are just arrived in town, without having had the benefit of establishing an acquaintance at Oxford or Cambridge, among the nobility, clergy, &c., and an absolute stranger here, without the assistance of dissenting teachers, relations, old women, nurses, children, or apothecaries; the first thing I advise you to do is to make all the noise and bustle you can, to make the whole town ring of you, if possible; so that every one in it may know that there is such a being, and here in town, too, such a physician. It signifies little which way it be, so it be done, and that your name be known and heard of, for that is half in half, since no one sends to consult him they have not heard of, that being a crime sufficient not to have been talked of; whereas, if accustomed to your name, you are a fit person to be called to the sick. Thus the famous R——f,*

* Radcliffe, we suppose.

'tis said, on his first arrival, had half the porters in town employed to call for him, at all the coffee houses and public places,so that his name might be known. A very famous occulist has likewise freely told me, that he must starve, did he not frequently put himself in the public prints: but this is not so fashionable with physicians, ready to their company, or that which they think their company understands the best, or are otherwise so complaisant, as to talk to their friends of their interest, for I would suppose you have insinuated yourself into their friendship. Besides that, the very seeing you now and then, might put them in mind of that which they might otherwise forget. The old and the simple, the riotous, the whimsical, and the fearful, are your most proper company, and who will provide you with most business; there being far less to be got by the wise and sober, who are much more rarely ailing. But then you will, perhaps, tell me, that such like physicians will be the most proper to please and keep company with such, since *similis simili gaudet.* If so, then I can only say, that those probably will stand the fairest for business; and if you are so wise or unwise, as not to ply, bend, truckle to their humors, I doubt you will be in danger of having less business: or, otherwise; if you would still continue, and be esteemed very wise, sober, and grave, you should then learn most obsequiously to fawn and sooth man, woman, and child, since few else will thrive well, unless blessed with wit, in which case, they may be allowed a little more liberty. To make yourself known, the making friends for some public lectureship is not amiss, which serves for a feather in your cap, by which you become known, and so taken notice of as a fine fellow; and then you have an opportunity of haranguing your auditory, which, though it should be mobbish or trifling, you gain your point. As to what you read or say, it matters not much; if from the more musty and ancient authors the better; if from the more modern, the more fashionable it would be: and thus consequently you will either be esteemed a very learned, or at least a very ingenious man. If you can be introduced to an hospital, your business is done for life, be your success what it will. If your wife should happen to mind business in her way, it will certainly also increase yours, for many good reasons, as increasing your friends and acquaintances. It will not be amiss to set up an equipage, to purchase a mountain of books, and add any thing by which you will acquire the reputation of being a learned and ingenious gentleman. Let your religious and political opinions swim with the tide, especially when fashionable. Let not your fingers be sacrilegiously defiled, but be very gentle in taking fees of the clergy, &c. People are generally employed in proportion to the manner they live in, especially if once a little known; for the employing of many artificers and tradesmen, &c. you may not only become more known, but they also support and employ you. Thus, if you get much, you must spend much; and if you spend much, you will readily get much, particularly if spent in a proper way, and once a little known. *Don Quevedo* is of opinion, that the best way to run into busines is to run into debt, because your creditors will employ you to get paid:—as to putting this experiment in practice, I shall rather choose to leave it to your own natural genius to direct you therein, than much to persuade you thereto, since there may be danger, should it not succeed.

To these hints I must observe to you, that dancing and dressing well, are not such slight accomplishments to introduce a young physician into practice, as you may imagine, because it makes him acceptable to the ladies and *beau monde:* his fashionable gesture, and gentle manner of feeling a pulse agreeably, is half the business: nay, that, and very little else, may, in time, for aught I know, go a great way towards an hospital, or other public employ. In fine, I shall now leave you; may you live and brush on, so you may take the other ways to it.

I could mention you some, who got into business in physic, by writing poetry, some by divinity, others by politics, &c. But should you have an itching to make your name known by writing a book on physic, yet so customary, I would

advise you to choose the subject by which you think you will yet most money, or that which will bring you the most general business, as fevers, small pox, &c. For in those, some must always live, some die, 'tis a hard matter to tell when right, or when wrong; write which way you will, 'tis disputable; but, certain it is, that the world in general readily conclude that you certainly understand that which you write about. The method of writing, if in your frontispiece you address not your book to some great man, is to club with some other physicians; and thus by way of letters, to commend each other's good practice, and to support and make each other famous. But above all things, take particular care, let the subject be what it will, that the words be well chosen, so as to make up an elegant and florid speech; since you have ten to one that mind the language more than the ideas, as Mr. Pope says:—

'Others for language all their care express,
And value books, as women men, for dress;
Their praise is still—'the style is excellent;'
The sense they humbly take upon content.'

And next, then, I would advise you, whatever the subject be you write upon (if uncommon the better), rather to write, so as that no man can make any thing of it, so as neither to make downright sense, or nonsense thereof, than otherwise; because then none of the profession can well lay hold of you for any particular part; or if they should, there is room for you to defend it, being as easy to be understood one way as t'other. This is that method I commend, which Mr. Locke observes to be possible enough, for one to write a tolerable discourse of well-chosen and well-joined words, which nevertheless, on the whole, makes not up any real sense, or intelligible meaning. Thus I will suppose a man to write of sleep; now if I wrote in this manner, it is ten to one but that it will make all who read it fall asleep, and, consequently, what can be better said on the subject.

The last thing I advise you to do, is to get acquainted and cheerfully to keep company with all old women, midwives, nurses, and apothecaries, since these will still be entertaining you in the way of your business, and as the old ladies, &c. are most subject to ailings, so they will still be acquainting you with the same; and consequently, you are to make the most of it, and never to neglect or make slight of the least complaint; and thus you will gain the reputation of being both careful and skilful; whereas otherwise your care and skill may be suspected as well as your affectation." 360.

This letter bears in it the marks of seriousness, or we should have thought that Mead was bantering his protégé. It unquestionably affords a very sorry picture of the state of physic in those days, and proves its professors to have been little better than a set of hypocritical quacks. What a farce must men like Mead have considered medicine, when they looked on a deep acquaintance with it as an evil, because it would make a man timid. And what a commentary on authorship does Mead supply us with. Yet he was himself an author! Can we wonder at the false facts which oppress us, when we read such confessions from men of respected names? Every body knows that Sydenham, when asked what books a young physician should study, named "Don Quixote." He was of much the same opinion as Mead. He had as great a contempt, we are told, for physic, as he had for physicians, avowing it as his opinion, that the whole art might be written on a sheet of paper. Yet, it may be doubted, whether a more luminous lesson was ever given, than his declaration that, when a young practitioner, he possessed twenty remedies for every disease, and before the end of his career, he found twenty diseases, for which he had not one remedy.

A curious anecdote, by the bye, is given of Radcliffe's pa'ronage of Mead.

"'A little behind my house,' says Dr. Cumming, 'lies Carshalton, at which place, in days of yore, I have been informed that Dr. Radcliffe and the great Dons in his day, held an hebdomadal meeting, sacred, not to Æsculapius, but to Bacchus.' To admit a young physician to one of these meetings, was deemed a distinguished honour; for no one was asked unless he seemed likely to prove conspicuous. When Dr. Mead was young, and just beginning to be talked of, he was asked to Carshalton; the object was to make him drunk, and to see the man: this design he suspected, and carefully avoided to fill a bumper when the sign was given.

'Mecum sæpe viri cum vino pellite curas:'

And he so managed as to see all the company retire under the table, except Radcliffe and himself; and the former was so far gone as to talk fast, and to shew himself affected by the potations. '*Mead*,' said he, 'will *you succeed me?*' '*It is impossible*,' replied the polite Mead; '*you are Alexander the Great, and no man can succeed Radcliffe: to succeed to one of his kingdoms is the utmost of my ambition.*' Radcliffe, with all his bluntness, was susceptible of flattery when delicately dressed up, and this reply won his heart. '*I will recommend you, Mead, to my patients*,' said he; and the next day he did Mead the honor to visit him in town, when he found him reading Hippocrates. Radcliffe with surprise asked, 'Do you read Hippocrates in the original Greek?' 'Yes,' answered Mead, respectfully. '*I never read it in my life*,' said the great Radcliffe. '*No!*' replied Mead, '*You have no occasion, you are Hippocrates himself!*' This did the business for Mead, and it completely gained the blunt Radcliffe; and when he did not choose to attend patients, he recommended Mead, who from that moment rapidly rose in his profession. 'This, says Dr. Lettsom, 'I heard ten years ago from old Dr. Mounsey of Chelsea, who was one of the party; and since, Crespigny, of Camberwell, told me the anecdote of this drinking party." 96.

But to return to Mead's letter and the art of getting practice. Extravagant as it may seem, and a burlesque on success in the profession, it was not inapplicable to the state both of medicine and society in those days. The prototype of Bob Sawyer then wore a wig and upraised a gold-headed cane. The ingenious Bob was forestalled by many an old physician. For example:

"Dr. Edward Hans (afterwards Sir Edward Hans) having acquired an Oxford reputation, left the University, and settled in London as Dr. Radcliffe's rival. Dr. Hans was an excellent scholar, and a good chemist and anatomist. On his arrival in town, he set up a very spruce equipage, and in this way he endeavoured to attract the eyes of the public and obtain practice; but he found he was unable to compete with Dr. Radcliffe. Dr. Hans now had recourse to a stratagem; and, to get into repute, ordered his footman to stop most of the gentlemen's chariots, and inquire whether they belong to Dr. Hans, as if he was called by a patient. Accordingly the fellow, in pursuance of his instructions, stopped every coach from Whitehall to the Royal Exchange, and even went into Exchange Alley, and entering Garraway's Coffee-house, made the same interrogatories above stairs and below. At last Dr. Radcliffe, who was usually there about 'change time, and being seated at a table with several apothecaries and surgeons, cried out when Hans' footman asked, in breathless anxiety, for his master—'Dr. Hans is not here, what do you want with him?' The footman replied, that such and such a lord was taken ill. 'No, no, friend,' said Radcliffe, 'you are mistaken, the doctor wants those lords.'" 83.

There are some amongst us, who, alarmed at the progress of knowledge, and averse to those exertions which are absolutely indispensable to keep us in the foremost rank, are ever, like the smoke of a steam-boat pointing back-

wards, and are full of the real science, the dignity, and honour of the old physicians. Mead's letter has brushed the dust from these cobwebbed pictures of respectability, and convinced us that the keeping and the colouring are but shabby, when stripped of the mystery that time and obscurity have thrown around them.

The fact is, that the more medicine becomes a science, the less it will be practised as an art. In the hands of Sydenham, of Radcliffe, and of Mead, it was, as the latter justly described it, a thing of "hit or miss." Not knowing the real value of symptoms from their ignorance of morbid anatomy, the same remedy was applied to very different disorders, and the consequence was, of course, uncertainty and confusion.

II. ILLUSTRATIONS AND SKETCHES OF MEDICAL QUACKERY.

We have a Chapter on this score. We do not mean to argue the question of Quackery just now, but a few specimens of it may amuse.

The quack watchmaker was not a bad prototype of the quack doctor. A man's watch having stopped, he took it to a mechanic in order to ascertain the nature of the defect, and to have it rectified. The watchmaker armed his eyes with a microscope, and, after exhausting his customer's patience, for a considerable time being, as he thought, very sapiently occupied in examining the machinery to discover the disorder, observed that he could do no good to the watch without taking it all to pieces. It was carried to another, who, a good deal to the surprise of the owner, discovered, and honestly told him, that he *had only forgotten to wind it up!*

Pliny hit off, in an age of quackery, the reason of the success of quackery. Minus credunt quæ ad suam salutem pertinent, si intelligunt. The mystery is the thing.

The Chili doctors have not a bad way of *raising the wind.* "They blow around the beds of their patients, to drive away diseases; and, as the people in that country believe that physic consists wholly in their wind, their doctors would take it very ill of any person who should attempt to make the method of cure more difficult." So says Zimmerman, and he does not *puff* the Chili faculty.

We all know how the Quack's attestations of cures tell. The late Lord Gardestone, himself a valetudinarian, took the pains to inquire for those persons who had actually attested marvellous cures, and found more than two thirds of the number died very shortly *after they had been cured.*

Yet the palmy days of Quackery have passed away, for where is the mountebank doctor at the fair? Our rustics have grown knowing and Katerfelto has shut up shop. The fact is that the mountebank has got a private house, and his clowns are noble lords and courtly dames. Hodge does not depose that St. John Long extracts mercury from a man's head. The illustrious peer who affirmed that, was not so inconsistent as might possibly be imagined. Knowing how much lead was contained in his own head, he might rationally suppose the presence of other metals in the heads of other persons.

The following account of the last Quack Doctor who exhibited, may be interesting. The famous Dr. Bossy was the man, and he has ceased to cure the incurable for fifty years.

"Every Thursday his stage was erected opposite the north-west colonnade of Covent garden. The platform was about six feet from the ground, was covered, open in front, and was ascended by a broad step-ladder. On one side was a table, with a medicine chest, and surgical apparatus, displayed on a table with drawers. In the centre of the stage was an arm-chair, in which the patient was seated: and before the doctor commenced his operations, he advanced, taking off his gold-laced cocked hat, and, bowing right and left, began addressing the populace which crowded before his booth.

The following dialogue between Dr. Bossy and a patient, we give verbatim, as it will afford the reader a characteristic specimen of one of the customs of the last age: it should be premised that the doctor was a humourist.

An aged woman was helped up by the ladder, and seated in the chair; she had been deaf, nearly blind, and was also lame; indeed, she might have been said to have been visited with Mrs. Thrale's *three* warnings, and death would have walked in at her door, only Dr. Bossy blocked up the passage.

The doctor asked questions with an audible voice, and the patient responded —he usually repeating the response, in his Anglo-German dialect.

Doctor. Dis poora voman vot is—how old vosh you?

Old woman. I be almost eighty, sir; seventy nine last lady-day, old style.

Doctor. Ah, tat is an incurable disease.

Patient. O dear, O dear! say not so—incurable! why, you have restored my sight—I can hear again—and I can walk without my crutches.

Doctor. (smiling) No, no, good vomans, old age is vot is incurable; but, by the blessing of Gote, I vill cure you of vot is ilshe. Dis poora voman vos lame, and deaf, and almost blind. How many hosipetals have you been in?

Patient. Three, sir; St. Thomas's, St. Bartholomew's, and St. George's.

Doctor. Vot, and you found no reliefs? vot, none—not at alls?

Patient. No, none at all, sir.

Doctor. And how many professioners have attended you?

Patient. Some twenty or thirty, sir.

Doctor. O mine Gote! Three sick hosipetals, and dirty [thirty] doctors! I should vonder vot you have not enough to kill you twenty times. Dis poora vomans has become mine patient. Doctor Bossy gain all patients bronounced ingurables; pote wid de plessing of Brovidence, I shall make short work of it, and set you upon your legs again. Goode peoples, dis poora vomans vos teaf as a toor nails (holding up his watch to her ear, and striking the repeater). Can you hear dat pell?

Patient. Yes, sir.

Doctor. O den be thankful to Gote. Can you valk round this chair? (offering his arm.)

Patient. Yes, sir.

Doctor. Sit down again, good vomans. Can you see?

Patient. Pretty so so, doctor.

Doctor. Vot can you see, good vomans?

Patient. I can see the baker there (pointing to a mutton-pie man, with his board on his head).

Doctor. And vot else can you, good vomans?

Old woman. The poll-parrot there (pointing to Richardson's Hotel). "Lying old Bitch," screamed Richardson's poll-parrot. All the crowd shouted with laughter. Dr. Bossy waited until the laugh had subsided, and looking across the way, significantly shook his head at the parrot, and gravely exclaimed, laying his hand on his bosom, 'Tis no lie, you silly pird, 'tis all true as is de gospel.'" 320.

Even the glory of the bone-setters is departing. In another century we fear they will be no more, unless the great Mr. Radley succeeds in establishing his anti-splint practices, when bone-setters will be consulted properly enough.

But at present these worthies must sigh for the days of "Mother Mapp." She drove from Epsom, her residence, once a week to the Grecian Coffee-house in a coach and six with out-riders! It was in one of these journeys, passing through Kent-street in the Borough, that being taken for a certain woman of quality from the electorate in Germany, a great mob followed, and bestowed on her many bitter reproaches, till madame, perceiving some mistake, looked out of the window, and accosted them in this gentle manner, "D— your bloods, don't you know me? I am Mrs. Mapp, the *bone setter!*"

Out of the many absurd anecdotes of quackery we find before us, we shall take but one more, because the College of Physicians plays a ridiculous part in it. The college, which has rarely given itself the trouble of interfering with quacks, determined to shew its power and avenge the cause of legitimate physic on the devoted head of Dr. Brodum. We may well conceive the resolves that must have swelled the bosoms of the censors, and the anxious expectation that pervaded the world of quacks and doctors. Brodum was summonsed. He was punctual to the appointed time, and being acquainted only with the Hebrew and English languages, the president condescended to address himself in the latter. The Doctor replied, that he did not attend patients at their own homes, that he prescribed only his own medicine, for which he had obtained His Majesty's royal patent, and that, in difficult cases, he always recommended Sir Lucas Pepys, or some other able member of the college. The president observed that he did not wish to interfere with his nostrum, but that they required him to drop the title of Doctor, and put *Mister* Brodum instead of Doctor on his door, and to desist from taking fees. The Doctor replied, that all his fees came in letters from patients residing far beyond the limits of their jurisdiction; but if they thought he was encroaching on their privileges by having his letters of consultation addressed to his house in London, he would request his patients to direct to him at a place beyond their jurisdiction. As to his styling himself Doctor, he ventured to say that he had a right to do so, having a diploma from the Mareschal College of Aberdeen. "I suppose," observed a censor, "a purchased diploma." "I don't know," replied the Doctor, "what you mean by a *purchased* diploma; I suppose all physicians, who possess a diploma, paid for it. I should not have had a diploma had I not been considered worthy of it; and, as to my nervous cordial, Dr. Warren, and other learned members of your college, have done me the honor to take it, and recommend it!!" To the question, "How long did you reside at Aberdeen?" the Doctor replied, "I have never been there." He obtained his diploma on a certificate signed by Dr. Saunders, who was then one of the ruling members of the College of Physicians! The quack doctor refused to remove his brass plate from his door, and the college declined to carry their threat to remove it, into execution. The Mareschal College, on being apprized of the imposition, came to the resolution of prosecuting Dr. Saunders for a fraud; and had not his friends exerted themselves, it would have been put in force.

This scene and its results must have been highly flattering to the college and to the profession, and not a little diverting to Brodum and the public. The quack had much the best of it in every way. It was certainly a good joke to see the college prosecuting Brodum, when one eminent Fellow had

procured him his Doctorate, and numbers of them had patronised his nostrum! This gave the college a sickener, and it never meddled with quacks again. Its powers, such as they were, they directed thenceforth against regular physicians.

ECCENTRIC MEDICAL MEN.

Here, as we have hitherto done, we shall merely pick out a few passages containing amusement or information.

Dr. Mounsey, physician to Chelsea Hospital, was the Abernethy of his day. When he had grown very old, his birth being a comfortable one, numerous applications were made to the Minister of the day for his place. The aspirants longed for the old Doctor's demise, and the court of Chelsea Hospital became a favourite lounge for those who thought that the house and situation would exactly suit them.

One day Mounsey saw, from his window, a physician accompanied by his friend, who were taking a survey of the spot. The friend was pointing out to the candidate the pleasant situation of the medical apartments, and enumerating the various advantages of the college residence. As Mounsey was fond of teasing, he immediately descended. A few words served for his introduction; when turning to the physician, he said,

"So, Sir, I find you are one of the candidates to succeed me!"

The physician bowed and proceeded:

"But you will be confoundedly disappointed."

"Disappointed!" said the physician, with quivering lips.

"Yes," returned Mounsey, "you expect to outlive me; but I discern from your countenance, and other concomitant circumstances, that you are deceiving yourself—you will certainly die first: though as I have nothing to expect from that event, I shall not rejoice at your death, as I am persuaded you would at mine."

This was actually the case: the candidate lived but a short time, and Dr. Mounsey was so diverted with checking the aspiring hopes of his brethren of the faculty, that whenever he saw a physician on the look-out he used to go down and confront him in the same manner. He did so to several, and what is extraordinary, his prognostications were in every instance verified. The medical speculators shrunk aghast from Chelsea; so that at the death of the doctor, the minister was not engaged by a single promise, nor had he for some time a single application for the place of physician to the college.

He remained singular to the last, bequeathing his body for dissection, an old velvet coat to one friend, and the buttons of it to another. In his will he inveighs bitterly against bishops, deans, and chapters; and leaves annuities to two clergymen who had resigned their preferment on account of the Athanasian doctrine. He wrote his own epitaph, after being much teased by visitors with *kind* inquiries for his health.

> "Here lie my old bones: my vexation now ends;
> I have liv'd much too long for myself and my friends.

As to churches and churchyards, which men may call holy;
'Tis a rank piece of priestcraft, and founded in folly,
What the next world may be, never troubled my pate;
And be't what it may, I beseech you, O fate!
When the bodies of millions rise up in a riot,
To let the old carcase of Mounsey be quiet."

Dumoulin was one of the most famous physicians of his time. His practice was great, but his avarice was greater. This almost swallowed up every other feeling—it certainly got the better of any personal apprehensions. He was once visiting with M. Sylva a man of high rank, who died in their hands. This sudden death, being quite unexpected, occasioned considerable consternation and murmur in the apartment, particularly in the anti-chamber, where the domestics allowed themselves to adopt the most licentious conversation, and even threatened the doctor with unpleasant consequences. M. Sylva, naturally timid, was alarmed, and communicated his fears to Dumoulin, saying, "By what door shall we escape?" Dumoulin having no fear but that of not being paid, replied, "*By the door where they pay,*" and intrepidly left the apartment, followed by Sylva, who trembled with fear. A great miser, having heard that Dumoulin far surpassed him in saving knowledge, waited on him one winter evening about eight o'clock. He found him sitting, illuminated, or rather darkened, by the smoky light of a single lamp. On entering, he said to him, "I have heard that you are one of the greatest economists existing; I also am so inclined, but conscious of my inferiority, I should be happy to become your pupil on this point." "Is that all?" replied Dumoulin, "Sir, be seated;" in saying so, he extinguished the lamp. "There is no occasion for light to show us how to talk, it only produces inattention. Well, then, what is your object?" "Sir," cried the stranger, "the lesson of economy I have already received is enough. I shall always remain a scholar in respect to you. I shall endeavour to profit by the lesson I have received;" and so withdrew in the best way he could in the dark.

Sir Richard Jebb, a physician to St. George's Hospital, cured the Duke of Gloucester of a dangerous illness. The King made him a Baronet, and appointed him his Physician Extraordinary. His Majesty, being indisposed one day, desired him to be sent for; but being told that it was etiquette to employ the physician in ordinary, he said, "Don't tell me of your 'ordinaries' or 'extraordinaries;' I will have Jebb."

Sir Richard's manners were *rather* bluff. Being called to see a patient, who fancied himself very ill, Jebb told him candidly what he thought, and declined prescribing, thinking it unnecessary. "Now you are here," said the patient, "I shall be obliged to you, Sir Richard, if you will tell me how I must live, what I may eat, and what not." "My directions as to that point," replied Sir Richard, "will be few and simple. You must not eat the poker, shovel, or tongs, for they are hard of digestion; nor the bellows, because they are windy; but any thing else you please."

Nothing seems to have made him swear more than the eternal question, "What may I eat?" "Pray, Sir Richard, may I eat a muffin?" "Yes, madam, the best thing you can take." "O dear! I am glad of that. But, Sir Richard, you told me the other day, that it was the *worst* thing that I could eat!" "What would be proper for me to eat to-day?" says another

lady. "Boiled turnips." "Boiled turnips!" exclaimed the patient, "you forget, Sir Richard, I told you I could never eat boiled turnips." "Then, madam, you must have a d——d vitiated appetite."

But he got, now and then, a Rowland for his Oliver. He once observed to a patient to whom he had been very rude, "*Sir, it is my way.*" "Then," replied the patient, pointing to the door, "I beg you will make *that your way.*"

Yet he appears to have been a mean spirited fellow at bottom. What could be more snivelling than the following behavior?

"I remember," says Dr. Lettsom, speaking of Jebb, "thy speech, 'Good God! Dr. Lettsom, Lord ————, whom I cured a year ago, has employed, lately, another physician.' 'Well, Sir Richard, you have more than you can do.' 'I know it, but this case has grieved me, incessantly, for a fortnight.' But when His Majesty turned away poor Jebb, and substituted in his place Sir George Baker, he never recovered from the blow. He left Great George street, and pretended to retire to Lambs Conduit street. But when the measles brought him again into the Royal Family, he was so agitated, that instead of sleeping at Windsor, he got up twelve times each night, was hurried, confused, tortured about the event, till at length, without apparent danger, he sent for Baker, to consult. After the termination of the measles, his own debility ensued, which he injudiciously increased by venesection; the effects of which no cordial could remove. But, poor fellow! a little before he died, the queen, in a letter, written by a German lady, inquired after his state of disease. This letter rekindled the expiring flame; he grasped it, and never parted with it, till life parted with his poor emaciated and weather-beaten frame!" 72.

Such abject conduct is too common in those who have basked in the sunshine of courts. Nor is it limited to physicians in ordinary. It was exhibited in the most marked manner by Wolsey and Bacon. If philosophy is so poor a solacer of court disgrace, physic need not blush at failing.

Radcliffe, the eccentric, daring, sceptical, and munificent physician, who contemned learning and left £40,000 to build a library, laughed at medicine, and founded two travelling fellowships for its promotion — and of whom Garth said that his building a library was much as if an eunuch should found a seraglio — was, after all, a little given to humbug. He always delivered his predictions in a tone of confidence. Having prophesied, with great accuracy, the fate of the Duke of Beaufort, he was always referred to as an oracle to decide disputed points of practice.

In Dr. Radcliffe's day great stress was laid on critical days. A slight cathartic on the *sixth* day of acute fever was considered fatal. A person having taken a gentle aperient on the sixth day, who labored under an attack of acute fever, died. The person who prescribed the dose produced the recipe, and, in his own justification, pleaded the mildness of the medicine. Radcliffe, whose judgment was referred to, after an examination into the nature of the case, acknowledged indeed the mildness of the dose, but in his own style pronounced, "*it was ill-timed; disturbed a crisis, and thereby killed the patient.*"

This was not amiss. The next trait tops it.

In the month of December, 1694, Queen Mary was seized with the small pox, which the court physician found it impossible to cure. Dr. Radcliffe was accordingly sent for by order of the Council to give his opinion.

At the first sight of the recipes, without seeing her Majesty, he told them, "she was a dead woman; for it was impossible to do any good in her case, where remedies had been given that were contrary to the nature of the distemper; yet he would endeavour to do all that lay in him, to get her some ease." Dr. Radcliffe's efforts to relieve his royal patient proved unavailing, and the queen died.

Radcliffe's tongue was certainly not attuned to courtly airs, nor did he "gloze or fawn, or bow the knee," to royalty. At one period he was highly in favour with the Princess Ann, of Denmark; but he forfeited her good graces, by his unpardonable rudeness. The Princess having been taken ill, the doctor was sent for, but he did not make his appearance as soon as was anticipated, and another messenger was despatched for him. When the symptoms of her highness's distemper were related to him, he declared that "her malady was nothing but the vapours, and that she was in as good a state of health as any woman breathing, could she but believe it" In consequence of this uncourtly language, he was dismissed from his attendance on the princess, and Dr. Gibbons was nominated as his successor.

And yet he could shew adroitness on the nonce. He was sent for to see the king, who had been seized with symptoms resembling the dropsy. Dr. R. found the king reading Sir R. L'Estrange's new version of "Æsop's Fables." After a little preliminary conversation, the Doctor requested His Majesty to allow him to look at the book he was reading. Upon opening the volume, the doctor read to the king the following fable, in these words:—

"Pray, sir, how do you find yourself?" says the doctor to his patient. "Why, truly," says the patient, "I have had a most violent sweat." "Oh! the best sign in the world," quoth the doctor. And then, a little while after, he is at it again; with a "pray how do you find your lady?" "Alas!" says the other, "I have, just now, such a terrible fit of horror and shaking upon me!" "Why, this is all as it should be," says the physician, "it shows a mighty strength of nature." And then he asks him a third time, the same question. "Why," says the patient, "I am all swelled, as it I had the dropsy." "Best of all," quoth the doctor, and goes his way. Soon after this, comes one of the sick man's friends to him, with the same question, "How he felt himself?" "Why, truly, so well," says he, "that I am e'en ready to die, of I know not how many *good signs and tokens*." "May it please your Majesty," says Radcliffe, "your's and the sick man's case is the very same." He advised the king to go abroad, and upon his return, Dr. R. was set for again. In reply to some questions put by the doctor, the king, showing his swollen ankles, which formed a striking contrast with the rest of his emaciated body, exclaimed, "and what think you of these?" "Why, truly," said he, "I would not have your Majesty's two legs for your three kingdoms."

Radcliffe was a practical joker as well as a wit. The art of uroscopy, satirized by Butler, and ridiculous at that time when so little was really known of the urine, was much in vogue in Radcliffe's day.

"Provided with this infallible indication of disease, a foolish woman called upon the doctor, and dropping a curtsey, told him, that having heard of his great fame, she had made bold to bring him a fee, by which means she hoped

his worship would be prevailed upon to tell her the distemper her husband lay sick with, and to prescribe proper remedies for his relief. 'Where is he?' cries the doctor. 'Sick in bed, four miles off.' Taking the vessel, and casting an eye upon its contents, he enquired of the woman what trade the patient was of; and learning that he was a bootmaker, 'Very well,' replied the doctor: and having retired for a moment, to make the requisite substitution, 'take this home with you, and if your husband will undertake to fit me with a pair of boots by its inspection, I will make no question of prescribing for his distemper, by a similar examination.'" 85.

He had a decided turn for humour, and like many wits relished the talent in another. He had, for instance, a great objection to paying his bills. A pavior, after long and fruitless attempts to get his account settled, caught Dr. R. just getting out of his chariot, at his own door, in Bloomsbury Square, and demanded the liquidation of his debt. "Why, you rascal," said the doctor, "do you pretend to be paid for such a piece of work? Why, you have spoiled my pavement, and then covered it over with earth to hide your bad work." "Doctor," said the pavior, "mine is not the only bad work that the earth hides." "You dog, you," said Radcliffe, "are you a wit? You must be poor—come in, and you shall be paid."

He was devoid of feeling. "A lady of rank consulted him in great distress about her daughter, and the doctor began the investigation of the case by asking, "Why, what ails her?" "Alas! doctor," replied the mother, "I cannot tell; but she has lost her humour, her looks, her stomach; her strength consumes every day, and we are apprehensive that she cannot live." "Why do you not marry her," said Radcliffe. "Alas! doctor, that we would fain do, and have offered her as good a match as ever she could expect." "Is there no other that you think she would be content to marry?" "Ah, doctor, that it is that troubles us; for there is a young gentleman we doubt she loves, that her father and I can never consent to." "Why, look you, madam," replied Radcliffe, gravely, "then the case is this: your daughter would marry one man, and you would have her marry another. In all my books I find no remedy for such a disease as this."

He had an odd escape from matrimony. "Being pressed by his acquaintances to marry, he looked out for a wife, and at length fixed upon the daughter of a wealthy citizen of London, with whom it was agreed that he should have £15,000 down, and a still larger sum on the demise of her father, whom, however, he soon found reason to address in the following terms:—'Miss Mary is a very deserving gentlewoman; but you must pardon me, if I think her by no means fit to be my wife, since she is another man's already, or ought to be. In a word, she is no better and no worse than actually quick with child. which makes it necessary that she be disposed of to him that has the best claim to her affections. No doubt you have power enough over her, to bring her to confession, which is by no means the part of the physician. I shall wish you much joy of a new son-in-law, when known, since I am by no means qualified to be so near of kin. Hanging and marrying I find go by destiny; and I might have been guilty of the first, had I not so narrowly escaped the last.'"

His death was accelerated by his love of the bottle, doubts of physic, and inopportune bluntness. The latter was peculiarly unlucky for him. On

the 28th of July, 1714, Queen Anne was seized with a severe fit of illness, which terminated her life. Radcliffe was sent for; but he sent word that 'he had taken physic, and could not come.' In a letter to a friend he states his reason for not obeying the summons. He says, 'I knew the nature of attending crowned heads in their last moments too well to be fond of waiting upon them without being sent for by the *proper authority*.—You have heard of pardons being signed for physicians before a sovereign's demise.—However, as ill as I was (his disease was the gout,) I would have went to the Queen in a horse-litter, had either her Majesty, or those in commission next her, commanded me to do so.'

Radcliffe, however, confessed that everything had been done to save her Majesty's life. In consequence of Radcliffe's apparent neglect of the Queen, the popular feeling ran very strong against him. He felt this very acutely. He did not survive the Queen many months. An early biographer says, that he fell a 'victim to the ingratitude of a thankless world, and the fury of the gout.' He died in November, 1714, in the sixty-fifth year of his age."

We think we need not say much of his Christian learning or piety, when we mention the following anecdote. A little before he died, he read the twentieth or thirtieth chapter of Genesis, and observed, "he found Moses a clever fellow; if he had known him a little sooner, he thought he would have read him through."

Abernethiana.—This seems inexhaustible. We shall take a morçeau or two which is new to us, though possibly stale to some of our readers.

A sensible Woman.—A female, who, consulting Mr. A., for an ulcer she had on her arm, was particularly asked, "what is the matter with you?" The patient immediately held up her arm, but did not utter a word. "Oh! oh! poultice it, and take five grains of blue-pill every night, that's all; come again in a week." The fee was presented, but refused; at the end of the week, the patient presented herself again, when the same pantomime took place, and the fee again refused. After a few more visits, Mr. A., on looking at the arm, pronounced it well, when the patient again offered a fee. "No." said Abernethy, "from *you* nothing will I receive, for you are the most sensible woman I ever saw, *You don't talk!!*"

Abernethy's Courtship.—While attending a lady for several weeks, he observed those admirable qualifications in her daughter, which he truly esteemed to be calculated to make the married state happy. Accordingly on Saturday, when taking leave of his patient, he addressed her to the following purport:—"You are now so well, that I need not see you after Monday next, when I shall come and pay you my farewell visit. But, in the mean time, I wish you and your daughter seriously to consider the proposal I am about to make. It is abrupt and unceremonious, I am aware; but the excessive occupation of my time, by my professional duties, affords me no leisure to accomplish what I desire, by the mere ordinary course of attention and solicitation. My annual receipts amount to £——, and I can settle £—— on my wife; my character is generally known to the public, so that you may readily ascertain what it is. I have seen in your daughter a tender and affectionate child, an assiduous and careful nurse, and a gentle and lady-like member of your family; such a person must be all that a

husband could covet, and I offer my hand and fortune for her acceptance. On Monday, when I call, I shall expect your determination; for I really have not time for the routine of courtship." In this way, however, the lady was wooed and won, and the union proved a happy one in every respect."

His Independence.—A certain noble personage, who at that time enjoyed a situation of great responsibility in the sister kingdom, had been waiting for some time in the surgeon's ante-room, when seeing those who had arrived before him, successively called in, he became somewhat impatient, and sent his card in. No notice was taken of the hint; he sent another card — another — another — and another; still no answer. At length he gained admission in his turn! and full of nobility and choler, he asked, rather aristocratically, why he had been kept waiting so long?— "Whe—ew!" replied the professor; "because you did not come sooner, to be sure."

His account of himself.—"People come here," he often was heard to say, "to consult me, and they will torture me with their long, foolish, fiddle-dee-dee stories; so we quarrel, and then they blackguard me all about this busy town; but I can't help it."

His kindheartedness.—In the year 1818, Lieutenant D—— fell from his horse on a paved street in London, and fractured his skull and arm, whilst his horse trod on his thigh and greviously injured his limb. Mr. A. was the nearest surgeon, and he was sent for; he came, and attended daily. After the lapse of months, convalescence took place, leaving great debility, when Abernethy enjoined the adoption of shell-fish diet, at Margate. His grateful patient requested information as to the amount of his pecuniary debt, for professional aid and care. Abernethy smiled, and said, "Who is that young woman?" "She is my wife."—"What is your rank in the army?"—"I am a half-pay lieutenant."—"Oh, wait till you are a general; then come and see me, and we'll talk about it."

His Lectures at the College.—On his receiving the appointment of Professor of Anatomy and Surgery to the Royal College of Surgeons, a professional friend observed to him, that they should now have something new. "What do you mean?" asked Abernethy. "Why," said the other, "of course you will brush up the lectures which you have been so long delivering at St. Bartholomew's Hospital, and let us have them in an improved form?" "Do you take me for a fool or a knave?" rejoined Abernethy; "I have always given the students at the Hospital that to which they were entitled—the best produce of my mind. If I could have made my lectures to them better, I would certainly have made them so. I will give the College of Surgeons precisely the same lectures down to the smallest details; nay, I will tell the old fellows how to make a poultice." Soon after, when he was lecturing to the students at St. Bartholomew's, and adverting to the College of Surgeons, he chuckingly exclaimed, "I told the big wigs how to make a poultice!"

His generosity.—Some years before his death, as Mr. Abernethy was walking up Holborn, he overtook one of his pupils; as was his custom when he had once noticed intrinsic talent, he entered into familiar conversation with him, observing that he had missed him for some time in the dissecting-room. The young man, with tears in his eyes, told him he was involved in debt, and that his parents, overtaken like himself by the shaft of adversity, could

not grant him the necessary supplies. "To what amount are you in debt?" "About £80, sir," answered the poor bankrupt. "Well," said Mr. A., "call at Bedford row to morrow morning at ten o'clock, and I will see what can be done for you." The young man was obedient to the wishes of his kind instructor, when a letter sealed up was put into his hand, on opening which he discovered a cheque for ninety pounds!

His civility.—A gentleman farmer, from a distant part of the country, either fancying there was some derangement in his system, or wishing, after having seen the other sights of the metropolis, to visit one of its principal lions, Mr. Abernethy, accordingly went to him. "Do you make a good breakfast?" inquired Mr. Abernethy. "Pretty good," answered the patient. "You lunch?" "Yes, I take luncheon." "Do you eat a hearty dinner?" "Pretty hearty." "You take tea, I suppose?" "Yes, I do." "And, to wind up all, you sup, I suppose?" "Yes, I always sup." "Why then, you beast," said Abernethy, "go home and eat less, and there will be nothing the matter with you."

EMINENT MEDICAL MEN.

Every man in the profession desires, of course, to be eminent—most men, when they enter it, have a kind of notion that they *may* be so—and all would like to know how to become so. On this important question, as on most others in physic, there is a little difference in opinion. Some think chance has a good deal to do with it—others lay all the merit on connexion —others (the minority) believe that desert is necessary. So far as facts go, there would seem to be some truth in each opinion, the one least sustained by evidence being, perhaps, the last. But, since teaching by example is the most instructive, and as, of all useful knowledge, the most useful is how to get on in the world, we shall endeavour to show, from the pages of our author, how a few lucky fellows *have* got on, and what manner of men they were.

Dr. Thomas Willis flourished much in the year 1685. He was regular in his devotions, his studies, and visiting his patients; and his custom was to dedicate his Sunday fees to the relief of the poor. Willis and Lower first recommended the waters of Astrop, which were afterwards decried by the celebrated Dr. Radcliffe; the reason for which was, the circumstance of the people of the village insisting upon the Dr. keeping an illegitimate child, which was laid to him by an infamous woman of that place: upon this, the Doctor declared "that he would put a toad into their well," and accordingly cried down the waters, which soon lost their reputation.

The advantages of looking sickly.—Every body knows that physicians are much chosen for their looks. People might à priori suppose that the Doctor who contrived to look freshest and youngest would be selected by patients; for, they might argue, "if this man keeps himself in good health, and wards off the assaults and larcenies of old age, he is the man for our money." But the fact is just the reverse. A lank, superannuated face is a fortune. Such a physiognomy *must* belong to a first rate man. It is indicative of *so* much thought, and of *such* solicitude for his patients.

Dr. Gideon Harvey found what a good thing it was to look ill. About the latter end of King William's reign, there was a great debate who should succeed the deceased physician to the Tower. The contending parties were so equally matched in their interests and pretensions, that it was extremely difficult to determine which should have the preference. The matter was at length brought to a compromise; and Dr. Gideon Harvey was promoted to that office; for the same reason that Sixtus V. was advanced to the pontificate; because he was in appearance sickly and infirm; and his death was expected in a few months. He, however, survived not only his rivals, but all his contemporary physicians; and died after he had enjoyed his sinecure above fifty years.

How Mead got into practice and kept it.—The Doctor had sacrificed rather more freely to the jolly god than was consistent with a healthy exercise of his faculties, and as he was feeling his patient's pulse, his foot slipped, when he ejaculated—"Drunk!—yes, quite drunk!"—alluding to himself. The Duchess, imagining he had found out her complaint, which she was most anxious to conceal, told Mead, if he kept her secret, she would recommend him. He did so, and the Doctor rose to fame and opulence.

Mead had a duel, as every body knows, with Woodward, and one version of it is funny. It is said that Mead and Woodward met, and both drew, and that Mead, not loving cold iron, retreated; when Woodward, making a false step, fell down. His antagonist then ran in, and standing over him, demanded if he would submit and ask his life. "If you threatened me with your *physic*, I might beg my life," said Woodward, but I certainly shall not ask it for fear of your sword."

Mead dabbled considerably in the stocks. One day, prior to his visiting his patients, he received intelligence that the stocks had suddenly fallen. At this moment he was sent for, in a great hurry, to visit a lady who was represented to be very ill. Having considerable property in the funds, the news made so strong an impression upon his mind, that, whilst he was feeling the patient's pulse, he exclaimed, "Mercy upon me, how they fall! lower! lower! lower!" The lady, in alarm, flew to the bell, crying out, 'I am dying! Dr. Mead says, my pulse gets lower and lower, so that it is impossible I should live!" "You are dreaming, Madam," replied the physician, rousing himself from his reverie; "your pulse is very good, and nothing ails you: it was the stocks I was talking of."

During almost half a century Dr. Mead was at the head of his profession; which brought him in, one year, upwards of £7,000, and between £5,000 and £6,000 for several years. His rival was Dr. Friend, whose practice was principally confined to the members of the high church or Tory party, Mead was patronized by the Whigs. When Dr. Friend was confined, during the suspension of the Habeas Corpus Act, under a suspicion of being concerned in a plot for the restoration of the Stuarts, Mead was incessant in his endeavours to obtain his liberation. At length, being called to attend Sir Robert Walpole, he absolutely refused to prescribe for him unless Friend was released; and he succeeded in effecting his object.

A large party assembled at Mead's in the evening to congratulate Friend; and, upon his retiring with Arbuthnot, Mead took Friend into his closet, and there put into his hands a bag containing all the fees he had received

from Friend's patients during his confinement, amounting to no less than 5,000 guineas.

A gentleman, who was troubled with a constant affection of his eyes, waited on Dr. Mead for advice. The doctor desired him to leave off drinking wine. In a few weeks the patient felt the good effects of the prescription, and waited on the doctor to thank him for his advice. He was not a little surprised to find him in a tavern, discussing a bottle of wine with a friend. "Well," said the patient, "I see you doctors do not follow your own prescriptions." To which Mead replied, "If you love your eyes better than wine, don't drink it; but as I love wine better than my eyes, I do drink it."

This is something like Abernethy's defence of himself. "I am often asked—'Well, but Mr. Abernethy, why don't you practice what you preach?' 'I answer, by reminding the enquirer of the parson and the sign-post; both point the way, but neither follow its course.'"

The following is not a bad, though certainly rather a shocking story.

"Walpole says, that Lady Sandon's influence over Queen Caroline arose from her being possessed of the secret of her Majesty's being afflicted with *hernia umbilicus*.* This, from motives of delicacy, she had communicated to the mistress of the robes, Lady Sandon; she was even so imprudent as to conceal her disease from the medical men, who treated her for gout of the stomach. When the danger became imminent, concealment was impossible.

Dr. Sands, an accoucheur, suggested that a cure might be effected by the injection of warm water. Dr. Mead entered a most positive protest against the experiment. Sir Edward Hulse was the only court physician who approved of the operation. At the time when the operation was performed, every wish to keep her Majesty's malady a secret must have been abandoned: for the courtiers, both male and female, were assembled in the anti-chamber, waiting anxiously the event.

The intestine was burst in the operation, and Dr. Sands and Sir Edward Hulse saw that the Queen must inevitably die of a mortification within a few hours. The only question which then remained for the two physicians to consider was, how they might get out of the palace before the unfortunate issue was known. They determined to say that the operation had succeeded. As soon as the two physicians came out of the Queen's chamber, and announced their success, the old Duke of Newcastle, who was among those who waited in the anti-chamber, ran up to Dr. Sands and hugged him, exclaiming, 'You dear creature, the nation can never sufficiently reward you for having saved the life of the most valuable woman in the world!' The doctor struggled to get away, apprehensive that some of the ladies, who had gone in to the Queen after the physicians had left her, might come out, and disclose the truth."* 20.

How many doctors' reputations seem to get wrecked at court? Royal bowels are ticklish things to meddle with.

It has been well said of Mead, that "of all physicians who had ever flourished, he gained the most, spent the most, and enjoyed the highest favour during his life-time, not only in his own, but in foreign countries."

Dr. Cadogan was a great shot in 1660. He married a rich wife, but the

---

* Nichol's "Recollections of Geo. III." vol. i. p. 369, and Cox's "Life of Walpole.

lady had a suspicion on her mind, that the doctor would one day poison her with his physic in order to get her out of his way, and feeling ill, on one occasion, she exclaimed that she was poisoned. "Poisoned!" said the doctor to a number of his wife's friends who were present, "how can that possibly be? Whom do you accuse of the crime?" "You," replied the indignant wife. "Gentlemen," said the doctor, with considerable *nonchalance*, "it is perfectly false. You are quite welcome to open her at once, and you will then discover the calumny."

Dr. Fothergill's name is familiar even to the present generations. He was the son of quakers, and himself a quaker. Of irreproachable conduct in general, his subsequent life contrasted strongly with an incident of his youth. While he resided at Edinburgh he walked the length of High-street naked to the waist, and, in a fit of inspiration, denounced God's vengeance on the inhabitants. This must have been a paroxysm of fanatical delirium.

Many instances are mentioned of his character. A physician of eminence, who had long been on a friendly footing with him, being under difficulties, and having a wife and several children to support, mentioned his distress to him, when, to his great satisfaction, Dr. Fothergill presented him with a draft upon his banker for 1,000*l.*

When he paid his last visit to patients in decayed circumstances, it was not unusual with him, under the appearance of feeling the pulse, to slip into their hands a sum of money, or a bank-note. In one instance this mode of donation is said to have conveyed 150*l.*

Such generosity was, perhaps, not the less meritorious because the doctor could afford it. We often find that the disposition to give is by no means in the ratio of the receipts. The Doctor, however, could afford it. Since his death it appears from his memoranda, that for the last twenty-five years his fees averaged 6,700*l.* per annum. The fortune which he left was computed at 80,000*l.* During the prevalence of the influenza, in the year 1775-6, he is said to have attended sixty patients a-day, and his profits were then estimated at 8,000*l.* a year.

At the commencement of the American war, Mr. Grenville, then in power, wishing to know how the quaker colonists stood affected, sent a messenger to Dr. Fothergill, intimating that he was indisposed, and desiring to see him in the evening. The doctor came, and his patient immediately drew from him the information he wanted on the popular topic of American affairs. The conversation lasted through a large portion of the evening, and it was concluded by Mr. Grenville saying, he found himself so much better for the doctor's visit, that he would not trouble him to prescribe. In parting, Mr. Grenville slipped five guineas into the doctor's hand, which Fothergill surveying, said with a dry, arch tone, "At *this* rate, friend, I will spare thee an hour whenever you please to send for me!"

As Fothergill exhibited no commanding talent, enjoyed no powerful connections, and had not, so far as we know, any singular strokes of good fortune, it may naturally be asked, to what he owed his success. We will not pretend to answer the question directly, but we do not doubt that his manners and conduct helped him materially. "He possessed," writes Dr. Cuming, "a greater purity of manners, more self-government, and more absolute command of his passions, than any man I ever knew, who was

constantly engaged in business; and a continued intercourse with the world. After saying thus much, I may be allowed to remark, that there was in his manner a *perpendicularity*, a certain *formality*, and *solemnity*, which checked, in some measure, the approach of strangers. He generally wore, indeed, on his countenance a smile—it was a smile of benignity and philanthropy, and, to his patients, it was a *hope-inspiring smile*.

> 'Seldom he laugh'd, and laugh'd in such a sort,
> As if he mock'd himself, and scorn'd his spirit
> That could be mov'd to laugh at any thing.' "

At first sight it would appear that the most opposite manners have succeeded equally in medical men, and that the rude and the courtly, the austere, and the jocose have been pretty evenly esteemed. Ability will make any kind of manner tell—for it will affix upon each its stamp. But cæteris paribus, we are inclined to think that a certain amount of stateliness, a habitual reserve, and a solemn gravity, are the best manners for a physician. If he has genius and knowledge, they acquire weight—if he has not, their deficiency is hid by such deportment. No doubt the humbug of a "sad and learned" countenance, does not pass quite so satisfactorily for wisdom as in former days; but it has still no slight effect, and we know a doctor or two, in this town, who could tell us so.

Fothergill is mixed up in a painful passage of Lord Clive's life.

His lordship had been living for some time at Bath, under a regimen for reducing the enormous quantity of opium which he had gradually brought his constitution to bear; and when this object was in a great degree effected, the physicians absolutely forbad his taking the waters, and advised his return to London. On his arrival there, Dr. Fothergill, whom he immediately consulted, blamed him very much for the course he had adopted, and advised his immediate return to Bath, strongly recommending the waters of that place as the only means of relief. Thus buffetted about by his different physicians, and concluding from their conduct towards him, that his case would not admit of any remedy, he resolved to obviate the lingering approaches of death by the fatal application of his own hand.

Sydenham had one or two odd notions. It is well known that he recommended young physicians to read Don Quixote, as *the* book of physic.—Another crotchet was this. He had such confidence in exercise on horseback, that in one of his medical works he says, "that if any man was possessed of a remedy that would do equal service to the human constitution with riding gently on horseback twice a day, he would be in possession of the philosopher's stone."

Sydenham died of the gout; and in the latter part of his life is described as visited with that dreadful disorder, and sitting near an open window on the ground floor of his house, in St. James's Square, respiring the cool breeze on a summer's evening, and reflecting with a serene countenance, and great complacency, on the alleviation to human misery that his skill in his art enabled him to give. Whilst this divine man was enjoying one of these delicious reveries, a thief took away from the table, near to which he was sitting, a silver tankard filled with his favourite beverage, small-beer, in which a sprig of rosemary had been immersed, and ran off with it. Syden-

ham was too lame to ring the bell, and too feeble in his voice to give the alarm.

Baillie, says our author, was rejected, like Armstrong and Mason Good, at the College of Physicians! We need hardly say that this is fudge, and the story applies to another man. But the story itself, and the Editor's addenda may amuse:—

"He called the next day on Dr. Barrowby, who was one of the censors, and insisted upon his fighting him. Barrowby, who was a little puny man, declined it. 'I am only third censor,' said he 'in point of age, you must first call out your own countryman, Sir Hans Sloane, our president, and when you have fought him and two senior censors, then I shall be ready to meet you.'

Many medical duels have been prevented by the difficulty of arranging the '*methodus pugnandi*.' In the instance of Dr. Brocklesby, the number of paces could not be agreed upon: and in the affair between Akenside and Ballow, one had determined never to fight in the morning, and the other that he would never fight in the afternoon.

John Wilkes, who did not stand upon ceremony in these little affairs, when asked by Lord Talbot, 'how many times they were to fire?' replied, 'just as often as your lordship pleases; I have brought a *bag of bullets and a flask of gunpowder with me*.'" 43.

Doctors, "*don't die hard*"—When Dr. Woodville, the author of the "Medical Botany," was supposed to be dangerously ill his friends called upon him and endeavored to excite his hopes of recovery: "I am not so silly," said the doctor, "as to mind what they say; I know my own case too well and that I am dying: a younger person with a better stamina might think it hard to die, but why should I regret to leave such a diseased worn-out carcase as mine?" The carpenter with whom he lodged, had not been always on the best terms with Woodville. The physician said he should wish to let the man see that he died in peace with him; and as he had never much occasion to employ him, desired he might be sent for to measure him for his coffin. This was accordingly done, the carpenter came, and took the measure of the doctor, who begged him not to be more than two days about it, "for," said he, "I shall not live beyond that time;" and he did actually die just before the end of the next day.

Dr. Fordyce, when near his latter end, desired his youngest daughter, who was sitting by his bed-side, to take up a book and read to him; she read for about twenty minutes, when the doctor said, "Stop, go out of the room, I am going to die." She put down the book, and left the chamber to call an attendant, who immediately went into the bed-room, and found Fordyce had breathed his last.*

Dr. William Hunter, a short time before he died, rose from his bed to deliver an introductory lecture on the operations of surgery, in opposition to the earnest remonstrances of his friends. The lecture was accordingly delivered, but it was his last. Towards the conclusion, his strength was so much exhausted that he fainted away, and was finally replaced in his cham-

* We give these anecdotes as we find them. Many are probably, some palpably, untrue.

ber, which he had been so eager to quit. Turning to his friend Combe, in his latter moments, he observed, "If I had strength enough to hold a pen, I would write how easy and pleasant a thing it is to die."

This same Fordyce, who died so comfortably, lived strangely. He dined every day for more than twenty years at Dolly's chop-house. His researches in comparative anatomy had led him to conclude, that man, through custom, eats oftener than nature requires, one meal a day being sufficient for that noble animal the lion. At four o'clock, his accustomed hour of dining, the doctor regularly took the seat at the table always reserved for him, on which was placed a silver tankard full of strong ale, a bottle of port wine, and measure containing a quarter of a pint of brandy. The moment the waiter announced him, the cook put a pound and a half of rump-steak on the gridiron, and on the table some delicate trifle, as a *bonne bouche*, to serve until the steak was ready. This, was sometimes half a boiled chicken, sometimes a plate of fish: when he had eaten this, he took one glass of brandy, and then proceeded to devour his steak. When he had finished his meal, he took the remainder of his brandy, having during his dinner drank the tankard of ale, and afterwards a bottle of port! He thus daily spent an hour and a half of his time, and then returned to his house in Essex-street, to give his six o'clock lecture on chemistry. He made no other meal until his return, at four o'clock next day, to Dolly's. How those who declaim on our degeneracy and the fine old customs and fine old constitutions of our forefathers will reconcile hypothesis with fact, we do not know. For our own parts, we confess that we are so effeminate as to think the state of society depicted by those etchings of our predecessors, very properly put an end to.

The Danger of resuscitating a Jail-bird.—Dr. Glover went for a short time on the stage. He conceived the idea that many persons in a state of suspended animation might be restored to life. The doctor was so confident of his opinion being well-founded, that he laid a wager with a brother comedian, that the first malefactor who was executed he would restore to life. The bet was accepted, and a few days after the doctor had an opportunity of proving that he was right, on the apparently dead body of a man who was hanged for a robbery He was, however, rather unfortunate in the choice of his subject; for the following day, the fellow having discovered the doctor's lodgings, and being introduced into the apartment where he was sitting, the resuscitated criminal, accosting the preserver of his life by the familiar appellation of "*Father*," said that as he had restored him to existence, it was his duty to support him as his son, and this he should expect him to do. The singularity of the application so amazed the doctor, that it was some time before he recovered his powers sufficiently to enable him to expel him *vi et armis* from the room. Nothing daunted by his reception, he visited the theatre that evening, and harangued the audience from the gallery, whilst the doctor was acting. Wherever the poor doctor went, his resuscitated friend followed him, demanding a settlement for life. At last Dr. Glover was compelled, in order to get rid of his *hopeful heir*, to offer to advance him a sum of money if he would leave the kingdom. This was accordingly agreed to.

Dr. George Cheyne, the celebrated author of "The English Malady," on coming up to London found the bottle companions, the younger gentry, and free livers to be most easy of access, or most quickly susceptible of friendship and acquaintance; nothing being necessary for that purpose but to be able to eat lustily, and to swallow down much liquor; but his health became much damaged, and he turned round to a milk and vegetable diet, under which he recovered. He died at Bath, in 1743, where he had been for a long period, in rather extensive practice. Among his patients, was the celebrated Beau Nash; who, on being asked one day, by Cheyne, if he had followed his last prescription, replied in the negative, adding, "If I had, doctor, I should certainly have broken my neck, for I threw it out of a two pair of stairs' window."

A patient, accompanied by Beau Nash, visited Dr. Cheyne, for the purpose of ascertaining the cause of a slight abdominal swelling, under which he was labouring. On examining the patient, the doctor pronounced the swelling to be occasioned by a collection of water, and that it would be necessary to be tapped. "It cannot be water," said the patient, "it may be wine." "No, no, my good fellow," said Nash, "if it had been wine, you would long before this have tapped it yourself."

Dr. Cheyne and Tadlow were exceedingly corpulent men, but the last was much the larger. Cheyne coming into a coffee-house one morning, and observing Tadlow alone and pensive, asked him what occasioned his melancholy. "Cheyne," said he, "I have a very serious thought come athwart me: I am considering how the people will be able to get you and me to the grave when we die." "Why," said Cheyne, "six or eight strong fellows may take me there at once, but it is certain that *you* must be carried there at *twice*."

The editor of these sketches subjoins the entire case of Colonel Townshend, which was detailed by Cheyne in his "English Malady." Most of us have heard of the case, but few have read the original and highly curious account of it, which we are accordingly tempted to subjoin.

"Colonel Townshend, a gentleman of excellent natural parts, and of great honor and integrity, had for many years been afflicted with a nephritic complaint which made his life miserable. During one of his attacks of illness he sent for Dr. Baynard and myself: we waited upon him with Mr. Skrine his apothecary. We found his senses clear and mind calm: his nurse and several servants were about him. He had made his will and settled his affairs. He told us he had sent for us to give some account of an odd sensation he had for some time observed and felt within himself; which was, that composing himself he could die or expire whenever he pleased, *by an effort of the will*, and, by another effort, could come to life again, which it seems he had sometimes tried before he had sent for us: we heard this with surprise, but as it was to be accounted for on no common principles, we could hardly believe the facts he related to us, much less give any account of it, unless he should please to make the experiment before us, which we were unwilling he should do, lest in his weak condition, he might carry it too far. He continued to talk very distinctly and sensibly for above a quarter of an hour, about this surprising sensation, and insisted so much in our seeing the trial made, that we were at last forced to comply. We all three felt his pulse first, it was distinct, although small and steady; and his heart had its usual beating. He composed himself on his back, and lay in a still posture for some time: while I held his right hand, Dr. Baynard laid his hand on his heart, and Mr. Skrine held a clean looking-glass to

his mouth. I found his pulse sink gradually, until at last I could not feel any, by the most exact and nice touch; Dr. Baynard could not feel the least motion in his heart, nor Mr. Skrine perceive the least soil of breath on the bright mirror he held to his mouth: then each of us by turns examined his arm, heart, and breath, but could not by the nicest scrutiny discover the least symptom of life in him. We reasoned a long time about his odd appearance as well as we could, and all of us judging it inexplicable and unaccountable, and finding he still continued in that condition, we began to conclude that he had indeed carried the experiment too far, and at last were satisfied he was actually dead, and were just ready to leave him. This continued for half an hour. As we were leaving, we observed some emotion about the body; and, upon examination, we found his pulse and the motion of the heart gradually returning: he began to breathe gently and to speak softly, and after some conversation with him we left him. He afterwards sent for his attorney, added a codicil to his will, settled legacies on his servants, received the sacrament, and calmly and composedly expired about five or six o'clock that evening." 63.

The only rational mode of accounting for these phenomena seems to us to be this—the patient being much reduced and near death, had fits of what may be almost syncope. Finding this, he either imagined or attained a power of inducing one. Be this as it may, the case is a very strange, as well as a very famous one, and will repay perusal.

Harvey's Treatment of the Gout.—This great man was a martyr to the complaint. He would sit with his legs bare, even if it were frosty, on the leads of Cochaine House, where he lived for some time with his brother Eliab, or put them into a pail of water until he was almost dead with cold; and then he would betake himself to his stove. He was troubled with insomnolency, to cure which he would rise in the night, and walk about his chamber in his shirt until he began to shiver, and then he would return to his bed.

Dr. John Friend wrote the history of medicine during his confinement in the Tower, in 1675. Friend, like most others of his day, was generally mellow after dinner. He was once sent for in this state, to a family of consequence; but the family not choosing to trust to his prescription, sent for Dr. Mead, who came, and, after looking at what Friend had written, took the opportunity of paying him a very high compliment. "'Pon my word," said Mead, "if Dr. Friend wrote this when he was drunk, he prescribes better than I can do when sober."

The following is a curious anecdote of Bishop Newton—curious in more than one respect. The Bishop *bled* freely to his doctors, though this antiphlogistic treatment did not cure him. "He was seized with a violent pleuritic fever—his illness cost him seven hundred and fifty guineas for physicians, and his cure was at last effected by *small beer*. Dr. Hope, Dr. Swynsen, and other physicians from Stafford, Litchfield, and Derby, were called in, and had two hundred and fifty guineas of the money. Dr. Friend came down post from London, with Mrs. Pulteney, and received three hundred guineas for his journey. Dr. Broxholme came from Oxford, and received two hundred guineas. When these physicians, who were his particular friends, arrived, they found the case quite desperate, and gave him entirely over. They said every thing had been done that could be done.

They prescribed some few medicines, but without the least effect. He was still alive, and was heard to mutter, in a low voice, "Small beer," "Small beer!" They said, give him small beer, or any thing. Accordingly a great silver cup was brought, which contained two quarts of small beer. They ordered an orange to be squeezed into it, and gave it to him. He drank the whole at a draught, and called for another. Another was given him, and, soon after drinking that, he fell into a most profound sleep, and a most profuse sweat for nearly twenty two hours. In him the saying was verified, "*If he sleep he shall do well.*" From that time he recovered marvellously, insomuch that, in a few days, the physicians took their leave, saying that, "Now he had no want of any thing but a horse for his doctor, and an ass for his apothecary."

Dr. John Arbuthnot, the friend of Swift and Pope, was Queen Ann's favourite physician. He was possessed both of wit and genius. When a young man, he attempted to settle as a physician at Dorchester, a town remarkable for its healthy situation, a circumstance unpropitious to the profitable practice of physic. On quitting it, a friend met him riding post to London. "Where are you going, Arbuthnot?" asked his friend. "To leave your confounded place, for a man can neither live nor die there," replied Arbuthnot.

The Queen having asked him what the time was, he replied, bowing with much grace, "Whatever it may please your Majesty."

Arbuthnot has given some amusing instances of the impression made on the public mind by Gulliver's travels when they first came out.

"Dr. Arbuthnot says, that Lord Scarborough (who was no inventor of stories) told him, that he happened to be in company with the master of a ship, who said, that 'he was very well acquainted with Mr. Gulliver; but that the printer had made a mistake, for it was at *Wapping*, and *not at Rotherhithe*, that the Captain lived.'

In another place, Dr. Arbuthnot says: "I lent Gulliver's Travels to an old gentleman to read; who, putting on his spectacles, went very deliberately to his map to look for *Lilliput*.'

Mr. Fortescue, (afterwards Master of the Rolls,) when a lawyer on the Western Circuit, wrote a letter to Mr. Pope, in the year 1727, stating that 'One Lemud Gulliver had a cause there, and lost it on the ill reputation he had acquired of being a most notorious liar:' and an Irish judge told some person of Swift's acquaintance, very gravely, that he looked upon the whole of Gulliver's Travels, (*whatever other persons might think of them*,) to be one continued heap of improbable lies." 71.

Dr. James Gregory, the able physician, illustrious teacher, and accomplished wit, has been heard to declare that nearly one-third of the patients who consulted him never paid their fees. He was a man too independent in spirit to demand what he had a right to claim, and consequently he was much imposed upon.

"That the profession are much exposed to the tricks of dishonest men, the following anecdotes will testify.

Of the noted Cooke who died some years ago at Pentonville, many anecdotes have been related, of plans which he practised in order to cheat medical men into gratuitous advice. One of his modes was to attire himself in rags, and ape the

pauper. Another was to procure a letter from some dispensary, and to attend there, which he did once for several weeks before he was found out to be a man of immense fortune.

On some occasions, however, he found himself obliged to seek advice in *propriâ personâ*, but even then he went upon a saving plan: at one time, having a complaint in his leg, he applied to a surgeon in his neighbourhood, a Mr. Pigeon, asking him how long it would take to make a cure. The surgeon answered, 'a month.' This alarmed the miser, who anxiously inquired what would be the medical demand; and on being told by the surgeon, who saw the complaint was trifling, that it would be a guinea, Cooke replied, 'a guinea! very well; but mark this—a guinea is an immense sum of money; and when I agree upon sums of such magnitude, I go upon the system of no cure no pay: so if I am not cured by the expiration of the month, I am to pay nothing!'

Mr. Pigeon accepted the terms; and by his diligence and surgical skill, would have closed the wound completely some days within the limited space; which the miser observing, and trembling for his gold, was determined to prevent, if possible; and actually procured an irritating plaister, which he put on, so as to extend the period of cicatrizing, which was then going on wholesomely; and was thus enabled, on the last day of the specified term, to show to the surgeon that the wound was still unhealed. The unhappy wretch, proud of his own infamy, had the hardihood to boast of it afterwards, under the cant phrase of 'plucking a pigeon.'

Even on his death-bed the ruling passion was still strong upon him; for having sent for several medical men, one only would attend; and he having for a few days sent in some medicine, the dying miser at length entreated him to say how long he thought he might live. The candid apothecary honestly said, 'perhaps five or six days;' when Cooke, collecting all his strength for the moment, and starting up in bed, exclaimed, 'There! are you not a dishonest man, a rogue, and a robber, to serve me so?' The apothecary, in some surprise, naturally enquired how he deserved those epithets. 'How, Sir!' faintly uttered the dying miser, 'why, you are no better than a pickpocket, to rob me of my gold, by sending in two draughts a day, to a man that all your physic will not keep alive for six days! begone from my house, and never enter it again.'" 85.

Most men in the profession are fully sensible, theoretically and practically too, of the disposition on the part of people to impose upon them. The general practitioner finds his bills unpaid—the pure is bilked of his fee. We have, more than once, been presented with a farthing, neatly wrapped up, lest our feelings should be shocked. Coronation tokens, Victoria tokens, bad sovereigns, and bad shillings, are all serviceable in the practical joke upon "the doctor." We remember hearing a story of the late Dr. Pearson, which evinces his dislike to being trifled with on the subject of fees. A patient consulted him and received a prescription. He gave the doctor half-a-guinea. "A guinea is my fee," quoth Pearson. The patient seemed inclined to let matters stand as they were. "Oh," said Pearson, "I have made an omission; allow me to look at the prescription again." The patient gave it him, and he, taking pen, ink, and paper, began to write another. "It is a half-guinea prescription you want, I see. I'll give you one of that sort directly." We need not say that the additional half-guinea was forthcoming in a twinkling.

Dr. Lettsom, born a quaker within the Tropics, apprenticed to Abraham

Sutcliff, a surgeon-apothecary in Yorkshire, attended St. Thomas's Hospital for twelve months, and then returned to the West Indies, to take possession of some little property, which had been left him by his father. It consisted of a small portion of land, and fifty slaves: and although, at this period, Lettsom was only possessed of fifty pounds in the world, he, with a feeling of humanity which does him immortal honour, soon after his arrival at Tortola, emancipated the whole of the slaves; thus reducing himself, by an act of justice, to great poverty, at the age of twenty-three.

Yet, some way or other, Lettsom was a lucky dog, for, in five months after commencing practice at Tortola, his native place, he succeeded in amassing nearly 2,000*l.*; half of which he gave to his mother, and with the other half he returned to England, with the view of following in the footsteps of Fothergill. His next hit was to marry a lady of great wealth. Such a beginning might justify any subsequent ill-luck. But the quaker did not know what ill-luck meant. For a considerable time he maintained the first practice as a physician in the city of London. His professional emoluments were great. In 1783, he received 3,600*l.*; in 1784, 3,900*l.*; in 1785, 4,015*l.*; and, in 1786, 4,500*l.*

Mr. Pettigrew observes, had he at this time taken all the fees that were presented to him, his receipts would have been double. In 1800 he received, in fees, 12,000*l.* This was considerably more than Dr. J. Fothergill ever derived from his practice; his highest sum was 5,000*l.* in one year.

Lettsom was a very charitable and humane man, and maintained the usual character of the profession for liberality and generosity.

"In 1782, he was sent for to visit an old gentleman. 74 years of age, who resided in the county of Essex. This gentleman had been a great American merchant; he had kept a princely house, and his heart was literally made up of generosity. The American war ruined him; but his creditors, valuing his upright character, permitted him to reside at his house in the country, with a genteel allowance, until his affairs could be settled. The protracted American war destroyed the prospect of retrieving his affairs; his allowance was, therefore, taken away. He fell sick, and consulted Dr. Lettsom. When the Doctor visited him, the gentleman said to him, pointing to his garden, 'Those trees I planted, and have lived to see some of them too old to bear fruit. They are part of my family; and my children, still dearer to me, must quit this residence, which was the delight of my youth, and the hope of my old age.'" 93.

The Doctor, upon quitting the apartment, left, enclosed in a letter, a check to relieve his present necessities. He also purchased the house, which was freehold, for 500*l.*, and gave it him for life.

An adventure occurred to Lettsom, very similar to one related of Rowland Hill. It is thus told in his own words.

"It was my lot, a few years ago, to be attacked on the highway by a genteel-looking person, well mounted, who demanded my money, at the same time placing a pistol to my breast. I requested him to remove the pistol, which he immediately did. I saw his agitation, from whence I could perceive he had not been habituated to this hazardous practice: and I added that I had both gold and silver about me, which I freely gave him, but that I was very sorry to see a young gentleman risk his life in so unbecoming a manner, which would probably soon terminate at the gallows; that at the best, the casual pittance gained on the highway would afford but a precarious subsistence; but that if I

could serve him by a private assistance, more becoming his appearance, he might farther command my purse; and, at the same time, I desired him to accept a card containing my address, and to call upon me, as he might trust to my word for his liberty and life. He accepted my address, but I observed his voice faltered; it was late at night; there was, however, sufficient star-light to enable me to perceive, as I leaned towards him on the window of the carriage, that his bosom was overwhelmed with conflicting passions: at length, bending forward on his horse, and recovering the power of speech, he affectingly said, 'I thank you for your offer; American affairs have ruined me;—I will, dear Sir, wait upon you.'

The man kept his word, and Lettsom finding, on enquiry, the account he gave of himself to be correct, after making an unsuccessful application, in his behalf, to the Commissioners for relieving the American sufferers, presented a memorial on the subject to the Queen, who, it is said, procured the man a commission in the army, and his name subsequently appeared on two occasions, in the Gazette for promotion, on account of good conduct." 96.

Lettsom determined to assail quackery, and went about the thing very valiantly. He prevailed on Phillips, the proprietor of the "Medical Journal," to allow him to insert, in every number of that work, an anonymous article on each of the advertising quacks of the country. Lettsom began with Brodum, the proprietor of the Nervous Cordial, and other furiously advertised preparations; and, without ceremony, charged him with killing thousands by their indiscriminate use; and, to undermine Brodum, stated that he had been a shoeblack at Copenhagen; a Jew vender of oranges; and, finally, a footman to a mountebank.

All this might be partly true, but it could not be legally proved in a court of law. Brodum, to whom the costs of a suit were of no importance, set his attorney to work, and Phillips, the printer, and three or four venders, were served with actions for 5,000*l.* damages.

Phillips called on Lettsom, and the whole college, one by one, to enable him to justify, but in vain; for not one could prove that Brodum had even a single swallower of his nostrums. The lawyers held consultations, and the ingenious Garrow was anxious to get his brother-in-law Lettsom out of the scrape. In the mean time, Brodum's attorney pressed for proceedings. At length, the editor of a newspaper stept between Phillips and Brodum; the latter agreed to withdraw his actions, and submit to the costs, provided the author was given up; but, if not, then he expected all expenses to be paid without demur; that the author should whitewash him in the next Journal, under the same signature; and, further, that Phillips, and the newspaper editor, should dine with him. Lettsom gladly paid the two attorneys' bills, amounting to 390*l.* Phillips had a splendid dinner, and the next Medical Journal contained a high eulogium on the talents and virtues of Dr. Brodum! Such was the issue of Dr. Lettsom's campaign against quackery.

He was remarkable for his attention to cleanliness. The mention of this gives occasion to the editor to introduce an anecdote which makes a fair addition to the stock of medical *bon mots*.

"This reminds us of an anecdote of an American physician, whom a lady consulted about her child's precious health. Among other things, she enquired if he did not think the *springs* would be useful. 'Certainly, Madam,' replied the Doctor, as he looked at the child, 'I have not the least hesitation in recommending the springs—and the sooner you apply the remedy the better.' 'You

really think it would be good for the dear little thing, don't you?' 'Upon my word it is the best remedy I know of.' 'What springs would you recommend, Doctor?' 'Any will do, Madam, where you can get plenty of soap and water.'' 97.

We dare say that many of our readers are familiar with the well-known squib on Lettsom.

"When any sick to me apply,
I physics, bleeds, and sweats 'em;
If after that they choose to die,
What's that to me,
I. LETTSOM."

The following answer to this *jeu d'esprit*, was written by his friend Sir M. Martin:—

"Such swarms of patients do to me apply,
Did I not practice, some would surely die;
'Tis true, I purge some, bleed some, sweat some,
Admit I expedite a few, still many call
I. LETTSOM."

Sir Richard Croft married a daughter of Dr. Denman; gained, or materially added to, his reputation by attending the Duchess of Devonshire in her confinement; and lost his reason as well as his life by attending the Princess Charlotte in her's.

It was proved, says the Editor of these Sketches, at the inquest held on his body, that since the death of the Princess Charlotte, he had never been free from melancholy and abstraction; and on Dr. Thackeray's asking after one of his patients, he replied, 'That he would give five hundred guineas if it were over, rather than have to attend her." On the night of his suicide, he exclaimed to his servant, who complained of being unwell, "What is your agitation compared to mine?" And a few days before, he struck his forehead with much violence, in the presence of Mr. Hollings, and abruptly said to him, "Good God! what will become of me?" His conduct, with reference to the Princess, was much censured at the time; but Dr. Baillie stated that every thing was done by Sir Richard Croft that skill and humanity could suggest. The fatal issue of the case filled his mind with despair, and alarmed his friends for the safety of his intellect. He was heard frequently to ejaculate to himself, "I shall go mad—I shall end my life in a mad-house—I am ruined—Who will place any confidence in me?" As he was driving in his carriage to the Princess when she was taken ill, he observed to a member of his family, "This case will either make me, or ruin me." Poor Sir Richard! he appears to have had a presentiment that *something* was about to happen which would seriously affect his prospects in life. It is said that a few days before he attended his illustrious patient, he fancied he saw the Princess clad in white, glide through his bed-room. Sir Richard was a man of fine and honourable feelings, and was beloved by all who knew him.

Cheselden came before the public at an earlier period of life than almost any other in the long list of professional excellence. He was a fellow of the Royal Society at twenty-one years of age, and at twenty-two gave lectures on surgery! Living in an intellectual era, he was the friend and companion of it's master spirits. Pope often dined with him, and thus writes of

him. "As soon as I had sent my last letter, I received a most kind one from you, expressing great pain for my late illness at Mr. Cheselden's. I conclude you were eased of that friendly apprehension in a few days after you despatched yours, for mine must have reached you then. I wondered a little at your question, who Cheselden was. It shows that the truest merit does not travel so far any way as on the wings of poetry: he is the most noted, and most deserving man in the whole profession of chirurgery; and has saved the lives of thousands by his manner of cutting for the stone."

Many of our readers have heard one part, at least of the following anecdote;—

"Notwithstanding the extensive practice he had been engaged in, he always before an operation, felt sick at the thoughts of the pain he was about to inflict; though during its performance, his coolness and presence of mind never forsook him. In alluding to this feeling, Moraud relates an anecdote of a French surgeon, who, on visiting the hospital, expressed great surprise at witnessing such an evidence of weakness as he considered it, on the part of so famous a surgeon. After the operation was over, the visiter was invited by Cheselden to accompany him to the fencing school, whither he was going to see a sparring match; but here the tables were completely turned, for no sooner did the contest begin, than the stranger turned pale at the sight, and was obliged speedily to betake himself to the open air." 114.

A *relation* of his was condemned to be hanged. Cheselden proposed, if the king would pardon him, to take out the drum of the prisoner's ear, in order to try what effect it would have; and if it succeeded, the experiment was to be repeated on Lady Suffolk. The man was pardoned, but the operation was never performed! It is a good thing for a felon to be related to a great Doctor.

Cheselden lost 1700*l.* by his work upon the bones. Douglas, who wrote a peevish critiquo upon it, called Belchier up one morning at six o'clock, when the work was published, and asked him if Cheselden was mad, by saying that he had not room enough to write more on the bones. "What!" said he, "could he not get more paper?"

Percival Pott "was originally intended for the church, in which he had considerable prospect of preferment; but he resisted the importunities of his friends, having manifested, in early life, a strong propensity for the profession to which he was destined in after life to become so bright an ornament. In 1736, Pott commenced practice in Fenchurch-street. In 1749, he was appointed one of the principal surgeons in St. Bartholomew's Hospital. At this period the state of the science of surgery was still very imperfect, notwithstanding some sensible and ingenious men had published observations which had enlightened and improved it. Still the maxim, '*Dolor medicini doloris*,' remained unrefuted; the severe treatment of the old school, in the operative part of surgery continued in force; the first principles of the science, the natural process and powers of healing, were either not understood, or not attended to; painful escharotic dressings were continually employed; and the actual cautery was in such frequent use, that, at the times when surgeons visited the hospital, it was regularly heated and prepared in the wards of the hospital and in the presence of the patients, as a part of the necessary apparatus. Mr. Pott lived to see these remains of barbarism set aside, and a more humane and rational plan, of which he was the originator, universally adopted.

An accident which Pott met with made him an author. As he was riding he was thrown from his horse, and suffered a compound fracture of his leg, the bone being forced through the integuments. Conscious of the danger attendant

on fractures of this nature, and thoroughly aware how much they may be increased by rough treatment or improper position, he would not suffer himself to be moved until he had made the necessary depositions. He sent to Westminster for two chairmen to bring their poles; and patiently lay on the cold pavement, it being the middle of January, until they arrived. In this situation he purchased a door, to which he made them nail their poles. When all was ready, he caused himself to be laid on it, and was carried through Southwark over London bridge, to Watling-street, where he was then living—a tremendous distance in such a state! It was during his confinement in consequence of this accident, that he planned and partly executed his celebrated treatise on Ruptures." 117.

Pott went a philosophical way to work in collecting the materials for his treatise upon Injuries of the Head. He was much engaged in practice at this time; and in order to amass many facts bearing upon the subject of his treatise, he was in the practice of visiting, almost daily, every hospital in London; and entered into a correspondence with the most eminent continental surgeons. "I must have facts," he would say: "what are mere opinions worth; any man may give an opinion, but it is not every mind that is qualified to collect and arrange important facts?"

Pott was very kind to medical men in distress. At one period he had three surgeons who had been reduced in circumstances, living in his own house, until he could find means by which they could earn an independent livelihood. He was most kind and attentive to the patients in the hospital: in particular cases he was not satisfied with seeing them at the ordinary periods, but he visited the hospital several times during the day. On one occasion he had performed a complicated and dangerous operation. He had seen the patient three times during the day; and during the following night he dreamed that the assistant at the hospital had forgotten to administer a particular medicine that he had ordered, and from which he had anticipated much good effect. He could not remain easy whilst this impression was on his mind. He rose from his bed, dressed himself, and in the middle of the night, without disturbing any of the family, went to the hospital, gained admission, had the house-surgeon summoned to his side, in order to satisfy himself that his instructions had been punctually obeyed. To his great astonishment he found that the medicine had not been exhibited! Pott always declared that his dream had saved his patient's life. Although a great surgeon and skilful operator, Pott was nervous prior to performing any difficult operation. He never allowed a day to pass without dissecting some portion of the human body. He considered it the sacred duty of every surgeon who might be called upon to operate upon the living, to be always operating upon the dead.

The person of Mr. Pott was elegant, though less than the middle size; his countenance animated and expressive; his manners and deportment were graceful; and his remarkable vigour and activity seemed unabated by age. On the last day of his illness he observed, "My lamp is almost extinguished; I hope it has burned for the benefit of others."

James Heaviside is generally known for his museum. He received an easy fortune on his father's death. Yet he practised his profession with assiduity and success. He never left London for recreation; and was always forthcoming, whenever an emergency required his presence. His domestic staff was well appointed, and his zealous aid-de-camp, who was his valet for thirty years, never failed to produce his master at any hour of the day and night;

which perhaps, may furnish us with a reason why he was so frequently called in to cases of accidents, and consequently so often figured as a witness in the courts of justice. "Egad," said Jekyl one day, "we never have a *homicide*, or a *suicide*, or any other *cide*, without a *Heaviside!*"

The principal event in his life arose out of his professional attendance at the fatal duel between Colonel Montgomery and Captain Macnamara, in 1802. For this he was committed to Newgate, and during a whole fortnight subjected to much pain and anxiety. His friends, Messrs. Erskine and Garrow, Mr. afterwards Baron Wood, and others, volunteered their aid; but still, the dread of the capital punishment, and with it the forfeiture of his property, made his situation seriously uncomfortable. In this dilemma, his brokers, Messrs. Johnson and Langden, sold out his stock, which, together with the rest of his possessions, was conveyed to a third party in safety; and to the credit of these gentlemen it should be told, that, though the amount must have been an object to be desired, yet, under the circumstances of the case, they transacted the business without the charge of a single farthing. In the end, the grand jury ignored the bill against Mr. Heaviside.

LITERARY AND SCIENTIFIC MEDICAL MEN.

The author of the sketches remarks that:—"it is a singular anomaly in the constitution of medical affairs, that a man's success as a practitioner is often in an inverse ratio to his scientific attainments! This is in a great measure to be attributed to the circumstance of the public believing that scientific knowledge is incompatible with practical skill or tact, as well as to the encouragement which the great give to ignorant and shallow pretenders to a knowledge of medicine.

It may be true, to a certain extent, that he who devotes his whole time to the study of any one of the sciences which are embraced in the study of medicine, to the exclusion of all practical investigations, is not pursuing a course best adapted to make him an acute practitioner; yet it must not be forgotten that even in the minor details and minutiæ of practice, a man of science may exhibit his superiority over the merely matter-of-fact and experienced physician or surgeon."

And, after some other observations, he adds:—"In no science so much as in medicine is a reference to principles of so much consequence, for no where does the mere sequence of events, the *post hoc propter hoc* mode of argument, so often lead into error. 'Without principles,' says Dr. Cullen, 'deduced from analytical reasoning, experience is a useless and a blind guide."

From the preceding observations the reader will perceive the immense superiority which the man of science has over the practitioner who has nothing to guide him, but undigested and unarranged facts. The former is seldom or never at a loss, the latter is always floundering and uncertain in his practice." *

* "He who follows certain arts or practical rules, without a knowledge of

We are not maintaining that the man of science, without experience is sufficient to constitute a good practitioner; but we do avow that in proportion as a medical man has a knowledge of the principles of medicine, so does he become qualified to grapple successfully with the various alarming diseases which will demand attention in the course of his practice."

We cannot be accused in fairness of undervaluing literary or scientific attainments; nor have we ever been advocates of empirical and routine practice. But it would be idle to maintain that practical attainments are consistent with any amount, how great soever, of devotion to literature or collateral science. There certainly is a point beyond which such devotion cannot be pushed without distracting the attention from practical pursuits, and interfering with the acquisition of practical knowledge. What that amount is it would be hard to say. We doubt if it is an invariable quantity. It depends very much on the temper of mind of the physician—if that is exact, if it has the qualities which constitute it "practical," then literature or science may be dived into pretty deeply, without much mischief resulting.

To make a good physician or surgeon, it is necessary that a man should understand thoroughly the principles of medicine, and should possess the power of analyzing symptoms, as well as of quickly seizing the important ones. Acquaintance with the science may be got by study—the faculty of deciphering the language of disease can only be obtained at the bed-side. If men will spend their time in their libraries or their laboratories, we do not see how they can acquire a knowledge of disease, or how they can hope to be expert at curing it. If such men complain of the blunders of the public, they are certainly unreasonable. The public care little (why should they?) for the *science* of medicine. What they want is to be relieved or cured. A man with pneumonia does not ask for a poem, or a quotation from Hippocrates, or a lecture on electro-magnetism; he is suffering, and claims relief, in danger, and implores for succour. Whoever does this best, is, to all intents and purposes, the best physician; and to do this well implies as much devotion to a special train of observation, as to excel in chemistry requires *it's* studies, or in natural philosophy *it's*. Practical men in our profession are such as, for the most part, avail themselves of the collateral science of others. In medicine, as in other things, the inventors are not always the best to apply inventions.

To return to our author:

"It is lamentable," says he, "to think how little encouragement is offered to medical men, in this country, to pursue with ardour their researches into the dominions of science.

In England the members of the medical profession are compelled to devote nearly the whole of their attention to the practical part of medicine. Very few men commence the study of physic with a view of attempting to enlarge its scientific boundaries. Lucrative practice is the natural and great aim of most who enter the profession." 183.

---

the science on which they are founded, is the mere artizan or the empyric; he cannot advance beyond the practice-rules which are given him, or provide for new occurrences and unforeseen difficulties."—*Abercrombie* "*On the Intellectual Powers*," *p.* 18.

"In England, if a man obtains eminence on account of a scientific discovery, or in consequence of his great practical skill, he may be honored with knighthood; and if he has great interest at court, he may succeed in being made a baronet; but these honors (!) come when he is least in want of them. A man who has already obtained eminence in his profession stands in but little need of an empty-sounding title, which at the most can only please his vanity, without adding one iota to his fame and reputation.

They manage things better in France. In that country the sciences and scientific men are encouraged and made comfortable: liberal allowance is provided for every member of the academies; and it is calculated that not less than one hundred thousand pounds is annually expended in pensions to men of science, of whose services, in various ways, ministers avail themselves. In France, titles of nobility and crowns of honor and merit are abundantly bestowed, and with the happiest effect. The late Dupuytren had the dignity of baron conferred upon him; and the same honor was paid to Larrey. The present king conferred the legion of honor upon Biett, Lallemand, Andral, and Chomel; thus demonstrating at once his respect for the science, and the professors of medicine." 186.

The fact is, as we have observed, that the public will always patronize the art—some other patron must be found for science. It seems strange that this has escaped our legislature and executive. Of all governments in Europe ours does least for science. Lord Melbourne, in his famous display with Faraday, said that pensions to scientific men were humbug! In this, we see the vulgarity of the tradesman, and the contemptible narrow-mindedness of the aristocratic leader of a faction. This same lord would cram the public offices with his relations or his parasites, and directly or indirectly pension every pimp to his party.

Unless something is done to encourage the *haute science* in this country, we shall soon be in the rear of civilized nations. The public is made up of individuals, and individuals will only purchase what is directly useful to them. Science is not of immediate utility, although it is to science that the usefulness of art is due. The public pay the practical man—the practical man owes much of his power to the scientific man—the scientific man is not encouraged, because society contains no class that immediately requires his article—and the consequence will be that science will first flag, and art afterwards. The government must step forward, and here, as abroad, erect professorships, by which science may get its bread. It cannot be tolerated that, in this wealthy country, government assistance, in other words the money of the nation, should be squandered on those only who assist the purposes of faction; and superciliously refused, or dealt with a niggard hand, to those who in the scale of human intellect are far superior to the political centurions who lord it over them.

"*John Locke* was originally intended for the profession of physic. He took a Bachelor's degree in medicine, on February 6, 1674, and was actually practising at Oxford, when accident brought him acquainted with Lord Ashley, afterwards Earl of Shaftesbury and Lord Chancellor. His lordship being advised to drink the mineral waters at Acton, for an abscess in his breast, wrote to Dr. Thomas, a physician at Oxford, to procure a quantity of those waters to be ready at his coming there. Dr. Thomas being called away by other business, easily prevailed with his friend Locke to undertake the affair, who happening to employ a person who disappointed him, he was obliged to wait on his lordship

to apologize. Lord Ashley, with his usual politeness, received him with great civility, and was satisfied with his apology; and being much pleased with his conversation, detained him to supper, and engaged him to dinner the next day and even to drink the waters, as he was desirous of enjoying his company, Lord Ashley not finding much benefit from the waters, Locke opened the abscess in his breast, and, it is said, saved his lordship's life." 186.

There is rather a curious letter from Locke to Sir Hans Sloane.

"Dear Sir,—I have a patient here sick of the fever at this season; it seems not violent; but I am told 'tis a sort that is not easily got off: I desire to know of you what your fevers in town are, and what methods you find most successful in them. I shall be obliged by your favour, if you will give me a word or two by to-morrow's post, and direct it to me, to be left at Mr. Harrison's, in the Crown, at Harlow.

I am, Sir,

Your most humble servant,

J. LOCKE."

Locke, wisely we think, turned to metaphysics and politics, and *cut* physic—*not* abscesses.

Dr. William Hyde Wollaston was educated at Caius College, Cambridge, and became a Doctor of Physic.

"Success, however, in the professors of medicine, is not at all times to be commanded, even by men of the highest attainment. Quackery and ignorance will thrive, while knowledge and honesty starve. And Dr. Wollaston, with all his cultivation of mind, and high professional advancement, failed to obtain that patronage from the public which he had a greater right to expect than many of his more successful contemporaries—being unable to stoop to those little arts of meanness and flattery, which are sometimes more successful in establishing a practice than learning and knowledge. Dr. Wollaston retired from the competition in disgust; and for the happiness of man, and interest of science, resolved, never again to write a prescription, even for his father, but to devote the remainder of his life to the pursuit of chemical philosophy." 198.

We are by no means sure that Wollaston was qualified for practice. It seems dubious whether his repugnance to a little art was invincible. For instance:—

"Anecdotes are told respecting the resolute manner in which he uniformly resisted the intrusion of either friend or stranger into his workshop; among others, it is related, that a gentleman of his acquaintance having been left by his servant to ramble from one room to another, till he should be ready to see him, penetrated into the laboratory. The doctor, on coming in, discovered the intrusion; but not suffering himself to express all he felt on the occasion, took his friend by the arm, and, having led him to the most sacred spot in the room, said, 'Mr. P., do you see that furnace?' 'I do.' 'Then make a profound bow to it, for this is the first, and will be the last time of your seeing it.'" 199.

The fact is, that Wollaston had a keen eye for gold, and he was afraid of any man's taking a leaf out of his book. If this is not a very tradesman-like view of science, we should be glad to be informed what is. And a very good tradesman Wollaston was, for his fortune was considerable, amounting to 50,000*l.* independently of an estate which he possessed in Sussex, and all of which was amassed by his own application and abilities. His most

important discovery, the malleability of platinum, by a purifying instead of an alloying process, produced him, in the long run, about 30,000*l.*

In a chapter on—

MAD DOCTORS AND MAD HOUSES,

we find some particulars of the life of *Dr. Willis*, to one or two of which we may refer.

Willis, writes our author, was a student of Brazen-nose College, Oxford, where he graduated M.A. and took holy orders, and obtained some time afterwards the living of St. John's, Wapping. Having, however, previously to his ordination, paid some attention to physic, he made his knowledge of that art so useful to his neighbours, that the doctors of Thetford, in Lincolnshire, where he resided, were greatly incensed at his success, and threatened him with a prosecution. This induced him to procure a medical diploma, which was granted him by the University of Oxford, in 1759, and shortly afterwards he became celebrated for his treatment of Insanity. He was called in to George the III. at the suggestion of Dr. Addington. He assured the ministers and the queen that the king would speedily recover. Unpleasant altercations took place among the physicians. Willis was strongly suspected of circulating reports rather gratifying to the minister than consonant to truth. He regularly sent to him every night a particular message, and generally by his son. On the 16th, whilst the subject of the king's illness was being debated in the House of Commons, Mr. Pitt and his friends declared that that evening, at eleven o'clock, the son of Dr. Willis arrived at the Treasury, with the satisfactory account that a happy change had taken place; and that Dr. Willis considered it as a certain indication of the king's speedy recovery.

When Sir N. Wraxall saw Willis not long after the king's restoration to health, he says that he (Willis) seemed to be exempt from all the infirmities of old age; and his countenance, which was very interesting, blended intelligence with an expression of placid self-possession. When summoned to attend the king, he readily obeyed, but, at the same time, he frankly informed her majesty, that if she expected any benefit to accrue from his attendance, he must be allowed to exercise the same authority which he should do over the meanest individual submitted to his control. He brought his own keepers with him, and dismissed every body who was in attendance upon his Majesty. The furniture was changed, and every thing was done to deprive his patient of old associations.

A proof which he displayed of his empire over his patient excited great amazement, not unmixed with alarm, as well as admiration. The king had not undergone the operation of shaving during more than five weeks, nor would submit to have it performed, yet expressed a strong desire to shave himself. Willis gratified him in this wish. "Your Majesty," said he, "is desirous to get rid of your beard. You shall have a razor given to you for the purpose." He instantly put the instrument into the king's hand, who went through the process with perfect success, Willis governing him by the eye throughout the whole performance.

Dr. Warren, in his examination before the Parliamentary committee,

stated that when he asked Dr. Willis how he could trust the king with a razor, he said, "I shuddered at what I had done."

The celebrated Edmund Burke asked Willis how he should have acted if his Majesty had been seized suddenly with frenzy, while the razor was in his hand. Upon this Dr. Willis desired two vivid lights to be placed between the great orator and himself, and exclaimed, "There now, I should look at him thus," darting, at the same time, such a look at Burke from his appalling eye, as made him recoil with affright. This mode of looking at a maniac, he observed, would cause him to quail more effectually than chains or manacles.

We believe that we must now shut this gossiping volume. We have already remarked that we would not vouch for the correctness of many of the anecdotes: we *would* vouch for the *incorrectness* of some of them. They seem to have been got together, perhaps in a hurry, certainly without much care or discrimination. The accounts of living medical men are, for the most part, ridiculously inaccurate. The work carries with it some marks of an extra-professional hand, and report has assigned it to the clever author of "the Diary of a Physician." If that be so, we look in vain for the powerful writing which that Diary contained, though the same vein of extravagance runs through both. With all the defects which criticism can point out, the blunders in matter of fact, the distorted view of professional life and professional success, there is still something to instruct and a good deal to amuse in these volumes.

We cannot conclude without again recommending our readers not entirely to neglect the biography and history of their profession. It is astonishing how ignorant the majority of medical men are of both. Yet in each there is room for useful study, and each furnishes important lessons to whoever chooses to learn them.

We have not on this occasion adverted particularly to the work of Mr. Pettigrew. We have already recommended it; and on a future occasion we shall bring up our arrears of notice of it. Mr. Pettigrew deserves the support of the profession, and no medical library, private or public, should be without his volume.

A TREATISE ON VARICOSE CAPILLARIES, AS CONSTITUTING THE STRUCTURE OF CARCINOMA OF THE HEPATIC DUCTS, AND DEVELOPING THE LAW AND TREATMENT OF MORBID GROWTHS. WITH AN ACCOUNT OF A NEW FORM OF THE PUS GLOBULE. By *Thomas Gordon Hake*, M.D. late Physician to the Brighton Dispensary, Orphan Asylum, &c. Quarto, pp. 20. London, Taylor and Walton, 1839.

SIR W. HERSCHEL observes in his Discourse on the Study of Natural Philosophy, that:—

"In a few instances only have we arrived at those general axiomatic laws which admit of direct deductive inference, and place the solutions of physical phenomena before us as so many problems, whose principles of solution we fully possess, and which require nothing but acuteness of reasoning to pursue even into their farthest recesses. In fewer still have we reached that command of abstract reasoning itself which is necessary for the accomplishment of so arduous a task. Science, therefore, in relation to our faculties, still remains boundless and unexplored, and after the lapse of a century and a half from the æra of Newton's discoveries, during which every department of it has been cultivated with a zeal and energy which have assuredly met their full return, we remain in the situation in which he figured himself,—standing on the shore of a wide ocean, from whose beach we may have culled some of those innumerable beautiful productions it cast up with lavish prodigality, but whose acquisition can be regarded as no diminution of the treasures that remain."

Do our readers deem us sanguine in applying these observations to medicine? We scarcely think ourselves so. Our attention has been chiefly turned, our acuteness principally directed, to the consequences and the symbols of disease, of the most obvious character—to symptoms and to structural changes which the unassisted sense of vision could perceive. How gross those must be, how general, how removed from the simpler and more elementary features of morbid action, need not, we conceive, be pointed out. The microscope is to be applied to the solids and the fluids in disease, and to distinguish, as no doubt it will, the primary deviations from normal mechanical constitution, which disease must of necessity exhibit, and in which it may often, perchance, consist. And chemistry is to come with her wonderful analysis, outrunning the microscope far more than the microscope outruns the eye. When we contemplate the field of research before us, we cannot think ourselves sanguine in anticipating a fertile crop of discovery in the future.

Dr. Hake informs us, in an advertisement, that:—

"I first saw varicose capillaries in tubercle of the spleen, given me, about ten months ago, at Paris, by M. Andral; I afterwards saw them in softening of the spleen, in which case they gave rise to hypertrophy of the entire organ, including the Malpighian bodies. In a preparation of intestine, which I was invited by Mr. Kiernan to inspect, I recognised the same state of the vessels, and communicated to Mr. Kiernan my opinion of its nature; but I had no suspicion of the full importance of this form of disease until recently, when I found that it was identical with carcinoma. The history of this discovery will be given in another place."

It is unnecessary to inform our readers that this statement has called up an indignant remonstrance and an angry denunciation of piracy from Mr. Kiernan. It would be foreign to our purpose to enter on the question of priority in this investigation, and in the discovery which hangs by it. Not that we think that question, personal as it is, an unimportant one. Scientific inventors should not be pillaged, nor should the laurel be basely filched or rudely torn from their brows. The encouragements to pursue abstract science are too few already. Reputation is almost the only recompense of those who woo it with success. Deprive them of that, and you strip them of all. The philosophic world is interested in maintaining a vigilant police, and *its* property must be guarded as jealously and as vigorously, as the goods and chattels of the citizen. We hold that the literary

robber, and the scientific swindler, are as dangerous and as despicable as the ruffians or vagabonds of every-day life, as much to be discouraged by the honest expression of public opinion, and as openly to be denounced by the "hue and cry" of criticism. If, then, we do not interfere, at present, in this controversy, it is not because we esteem it insignificant, but because the data for judgment are imperfect. We shall content ourselves with simply detailing the observations of Dr. Hake, postponing to a future period all collateral considerations.

We do not anticipate that we shall be able to analyse the observations of our author. They are in too condensed a form. Where we can compress we will.

"There is a disease of the liver in the rabbit which consists of carcinomatous enlargement of the ducts, but manifests itself under the apparent form of small abscesses. This appearance is owing to dilatations of the ducts, which occur at regular intervals. These dilatations may be either few in number, or so numerous as to occupy the greater portion of the substance of the liver, and to be seen, through the peritoneum, to cover numerous points of its surface.

I had been recently engaged in investigating the characters of pus, as developed under the various aspects of disease, and the first step of my inquiry into this affection of the ducts was to examine, by the aid of the microscope, the purulent fluid which they contained, although with no other expectation than of finding some known variety of the pus globule. This fluid, however, proved to be of a nature different to that of common matter; it consisted of ovate corpuscules, several times larger than the globules of ordinary pus. These corpuscules contained within their exterior oval capsule a central nucleus of a circular form, corresponding generally in size to the greatest transverse diameter of the exterior capsule, though varying from that to the entire length of the oval envelope. Within the central nucleus numerous molecules were imbedded, some of greater and others of less size than those which may be exposed in the common pus globule by means of the solvent action of strong acetic acid.

A formal examination of the general characters of the disease and its relations led me to observe that the gall-bladder, cystic duct, and ductus communis choledochus, as well as the hepatic ducts, were distended with the fluid. From the common duct it passed freely into the duodenum, with the contents of which as well as with those of the stomach and general intestines, it was mixed in considerable quantity. In two instances there was an obstruction to the passage of the fluid from the gall-bladder to the cystic duct. In one of these the gall-bladder was distended with a purulent, in the other with a greenish transparent fluid; but the ovate corpuscules were found within it in both cases.

The next step of the investigation was to ascertain the distribution of the vessels, and the means by which this matter was deposited in the ducts; the external surface of the enlarged portions of which appeared highly vascular, and of a deep red colour.

Having obtained another rabbit, I tied the aorta and portal vein so as to cut off all supply of blood to the liver. I then opened the hepatic vein. The liver, which was occupied by the disease to the fullest extent, was carefully injected on the following day, and with perfect success. The highly vascular surface of the ducts received the injection from both the hepatic artery and portal vein, but principally from the latter. The white fluid within the ducts was in some parts tinged with green, the colour employed to inject the portal vein; in others with the red injection from the artery. On opening different ducts and examining their inner surface, I found it to be the seat of a thick, irregular, morbid growth, which was deeply impregnated with the red and green injections, but in

which no vessels were detectable by the naked eye, except the more considerable branches of the hepatic artery.

Having subjected both the outer or vaginal, as well as the inner surface of these highly-injected ducts, to microscopic observation, I found the former covered with an exceedingly minute plexus, derived from the portal vein, with branches of the artery crossing it. This plexus in many parts possessed the characters of healthy vessels; a fact of the highest interest in physiology, since it shows the exact manner in which the portal circulation is carried to the hepatic ducts; and being continued to the inner surface of the ducts, as will be presently shown, it explains the secretion of bile on the same principle as that of other fluids, viz. by the distribution of vessels over a free surface.

An examination of the inner surface of the ducts proved that the new growth consisted of a plexus of capillaries derived from the portal vein, interspersed with others from the hepatic artery. This plexus, however, instead of presenting a healthy form, was seen to consist of varicose vessels, in some parts dilated to an extraordinary degree and knotted, and in others contracted. Indeed, the entire structure consisted of a plexus of varicose capillary vessels." 7.

Varicose Capillaries the efficient cause of Carcinoma.

Dr. Hake pays a compliment to the accuracy of Dr. Carswell:—

"Dr. Carswell, in his elegant Illustrations of the Elementary Forms of Disease, has supplied a drawing of the affection of which this paper treats, and has the entire merit of having ascertained that it existed in the ducts, the extremities of which, he says, 'are dilated into the form of pyriform sacs of various sizes. In these sacs, as well as in the biliary ducts, the tubercular matter was of the colour and consistence of cream, and was made to flow out at the cut extremity of the ductus communis choledochus, when pressure was applied either to the hepatic ducts or to their bulbous extremities. The pyriform sacs presented externally a smooth uniform surface; except in two or three instances, in which they were slightly lobulated. Internally, some of them had a cellular aspect, but the most of them were uniformly hollow. The fundus of several was connected with the substance of the liver by what appeared to be small blood-vessels.'" 7.

Dr. Hake has confirmed these observations by examination of the disease in its early stages.

At first, he says, simple dilatation of the duct, without thickening, takes place; the bile found within the duct at this period of the disease contains globules like those of the blood, but of three or four times their diameter, and occasionally with a molecule formed on their disc. In a more advanced stage the duct is thickened and pyriform at its egress from the glandular grains of the liver, and contains pus. This thickening of the duct represents the crude state of carcinoma; but as the disease advances, and the whole of the ducts become knotted, and indeed varicose, the structure softens, and presents all the characters of medullary sarcoma. The cellular aspect which the disease presents is caused by shoots of vessels in the form of flocculi; and its ultimate softening by the tenuity of the vessels, which increases with their varicose growth.

It happens frequently that the outer surface of the enlarged ducts is coloured, from the presence of congested vessels. By injection, this appearance is proved to be a plexus of capillaries from the portal vein. These

capillaries not being varicose to the same extent as those within the duct, but often of a regular form and diameter, may be supposed to represent the distribution of the portal vein to the hepatic ducts in their healthy state. Branches of the artery also cross these ducts; but their plexiform distribution is reserved for the inner surface, where they blend, without anastomosing, with a similar structure of portal capillaries.

The vessels which connect the enlarged ducts and the glandular grains of the liver are the minute ducts, which are distributed round those bodies. The walls of these capillary ducts, which do not participate in the disease, as well as those of the larger branches, receive injection from the portal vein.

The carcinomatous structure of the ducts is entirely vascular, and consists of a plexus of varicose capillary vessels, which extends in every direction, and not over the surface alone. In fact, the diseased vessels commencing from the external plexus anastomose, and proceed to the inner surface of the ducts, while, in the interstices which they leave between them, the pus is collected. The varicose state of the capillaries is almost coetaneous with their formation, the process of their growth being subject to pathogenic laws, if not their first formation. The new vessels do not shoot into an albuminous or any other deposit, as some have supposed; but proceed in the form of flocculi from a vascular base, become varicose, and again give out branches; and their increase alone constitutes the growth of carcinoma, and their different degrees of varix its progressive softening.

Such is the manner in which this morbid growth is developed within the ducts. Its structure is entirely vascular. If a transverse section of the duct be made, the plexus of varicose capillaries which forms its substance is seen to resemble a honeycomb; and the vessels are so minute, that only the more dilated ones are seen when magnified from twenty to thirty times linear.

The capillaries of the hepatic artery, though fewer in number than the venous, are equally the seat of varicose enlargement. And Dr. Hake summarily states that the efficient cause, then, of carcinoma, as existing in the hepatic ducts, is to be found in universal varix of the veins and aneurysm of the arteries, as affecting capillaries, and in the simple increase of vessels so affected.

Comparison of the Pus Globule, the Blood Globule, and the Matter contained in Diseased Hepatic Ducts.

"The purulent matter," we are still quoting Dr. Hake, "found within the diseased hepatic ducts of the rabbit, when examined by the assistance of the microscope, is seen to consist of two principal parts, a serous fluid and ovate corpuscules. The latter bodies bear the same relation to their containing fluid, as the blood or pus globules to their serum. They are semi-transparent: in form they resemble ova, but cannot be considered as such for various reasons. In ova there is a cohesion among the various parts, a continuity of organization: a state altogether contrary to this is seen in the ovate corpuscules, the great feature of which is their tendency to degrade from the normal form, and be resolved into their constituent parts, the relations between which are entirely physical. The substance of the ovate corpuscule is homogeneous, each of its parts being complete in itself, having a uniform structure, and united to the

rest only through contiguity of substance and not by continuous organization. The membraneous capsules are constantly seen disengaged from their nuclei; the latter are found without their oviate capsules, while perfect in every other respect. Again, these circular nuclei, which differ in size, whether contained within or disengaged from their capsule, are sometimes partially or entirely freed of their molecules, while the latter, either single or in groups, remain in the serum unaltered. Fragments of the oviate capsules also abound in the same medium, under various but oftentimes regular forms. These changes correspond, in a great measure, with those experienced by the ordinary pus globule, which, if observed in various diseases, will often be found disintegrated, whether in the blood or elsewhere, their molecules being discovered without their matrix, as in the case of the oviate corpuscules, and floating among other constituents of pus; and the matrix existing entire, split into portions which are still adherent, or resolved into amorphous parts. In one instance, a quantity of chalky matter, deposited in the calyx of the kidney, proved to be composed entirely of pus molecules.—In this case pus globules existed plentifully in the blood. Again, although the molelcules of the ovate corpuscules, which vary in size, are occasionally much smaller, they are as frequently of nearly the same diameter as the common pus molecule; and in each circular nucleus, there appear one or two molecules of a much larger size. Acetic acids do not appear to act on the ovate corpuscles, except by the aid of slight pressure, which is most conveniently applied between two pieces of glass, and by the same means the pus globule is entirely dissolved. Such is the principal evidence which I have to offer of the identity of pus and the fluid contained in diseased hepatic ducts; not to omit the impossibility of distinguishing one from the other by the naked eye, a proof sufficient in itself where the microscope is not employed.

Although I have examined pus extensively in various diseases, and both in and out of the blood, my observations do not afford sufficient data on which to decide the method of its formation. It may be well, however, to state so much of what I have ascertained as may tend to assist the present discussion. It is not known whether pus is a degradation of the blood globule or a new formation. ' However, in purulent matter, formed from an accident, it happened to me to find that the globules were exactly the size of those of the blood. There were some pure blood globules, and others resembling them both in magnitude and in the evenness of their circumference, but which had one, two or more of those characteristic marks of pus which point out the situation in which the molecules are either formed or are in the progress of formation. There were others, of the same size, in which those marks were most distinct, and the edges rough; but in pus produced from changes operating on the general system, or by chronic disease of a part, the globule is from one-third to double the size of the blood globule; it is more flattened than the latter, and has a broken border. This kind of globule may be detected in the blood in all cases in which the system is affected by a local deposit of pus. In the last stage of phthisis the blood was found by Dr. Carswell and myself to contain no other globules than those of pus.

These facts would favor the belief that pus is formed from the blood; and it is a view which, in the present state of our knowledge, I am most disposed to adopt: but if the ovate corpuscles be purulent, as there is good reason for admitting, there is this difficulty, that they are greater in diameter than many of the vessels composing the plexus before described. The knotted portions of these vessels, however, as well as those which appear to have arrived at their highest degree of dilatation, are considerably larger than these corpuscles; and since the latter occupy the interstices of their plexus as well as the channel of the ducts, it is more than probable that they are formed in these reservoirs from the venous blood which principally fills them." 11.

That pus is formed from the blood is, we suppose, certain. But that it is formed without submitting to some intercurrent transformation by the capillaries does not seem, to our understanding, favoured by the fact that the pus globule is found in the blood in all cases of local deposit of pus. This goes to establish resorption, rather than primary formation of the purulent fluid.

Size of the Corpuscles and Varicose Capillaries.

The greatest diameter to which the varicose capillary veins arrive is the hundredth part of an inch; but they often vary from that to the four-hundredth of an inch in the same branch; but the minutest branches, those which appear of new growth, are as small as the five-thousandth of an inch. By a comparison of the size of the ovate corpuscules, which are about the eight hundred and fiftieth part of an inch in their shortest, and the four hundred and fiftieth of an inch in their longest diameter, with the size of the larger vessels, it will be seen that the latter are sufficiently capacious to contain them.

The following speculations appear to us to stand upon stilts. We do not see, in the facts related, any premises which naturally lead to such conclusions. It is unnecessary to point out the unsupported assertions; our readers will at once perceive them.

"When the blood globules once reach these varicose sacs, it is highly improbable that they should ever proceed again to the pulmonary system. The extreme tenuity to which the vessels arrive, and their rapid growth, shows how readily parts adapt themselves to circumstances. Instead of depurating the blood, the vessels, by a change of state and increase of their contents, separate pus, as vicarious of bile which is evacuated through the natural channel of the billiary secretion. Dr. Cruveilhier of Paris mentions that, in enlarged ducts of a dog, he found only blood; a case, probably, in which the rupture of varicose capillaries had given rise to hermorrhage. That undue aeration of the blood, whether from extensive pulmonary disease, as in the case of phthisis cited, or from its detention in varicose capillaries, or any other cause, will give rise to the purulent degeneration of the globules, I do not doubt. In persons in whose blood pus has formed during a residence in hospitals, an event of frequent occurrence, all traces of it have disappeared after two or three days spent in a purer atmosphere. On the same principle, blood detained in varicose capillaries instead of being purified by secretion, and afterwards transmitted to the lungs, would degenerate into pus. But how this new form of the pus globule is produced must at present be left undetermined, for no other instances of a secretion of pus from venous blood have been collected in aid of the inquiry." 11.

Dr. Hake adds:—

"There were no traces of the ovate corpuscles in the urinary bladder; the chyle also was free from all trace of their presence. Although the blood offered no indications of their existence in the circulation, it presented appearances worthy of notice. In the liver, spleen, and kidneys, the blood globules were confluent; that is to say, had lost their individuality to a greater or less degree, and had run into each other, forming masses: a state of the blood which I have witnessed under other circumstances, as in fever, hæmorrhoids, &c.; and even in nervous affections, as mental inquietude, palpitation, &c., when there has been

no other deviation from health. In the lungs the blood globules were distinct, but often grouped into the form of the ovate corpuscules and their nuclei. In the liver the same groups appeared, but with the globules confluent. Here also the same large globules were observed as in the bile in the earlier stage of the disease.

There were distinctive differences among the ovate corpuscules found in the digestive organs. Those in the stomach appeared to have suffered partial digestion, and in the duodenum there was some variety in their form.

The capillary vessels of the stomach and duodenum which I had injected were aneurismal; and, in the parts which they supplied, there was observed a tendency to what in such cases is falsely denominated ulceration, a process which will be presently explained." 12.

Hypothesis of Morbid Growths.

Our author's conclusions are more sweeping than the bare facts observed by him would seem to warrant.

"The fact that all morbid productions, whether cancerous, tuberculous, osseous, or of other kinds, may not only co-exist, but be intimately mingled in structure: that these are found connected with purulent, serous, bloody, and other deposits;—this fact, considered by Béclard as one of the greatest sources of difficulty in the study of pathological anatomy, may, at the present era, be viewed as a collective proof that one and the same law presides over the development of all disease. Though the nature of this law has been unknown, authors have not failed to detect an intimate alliance between the various forms of carcinoma, so that scirrhus, cancer, medullary or gelatiniform sarcoma, have been called indifferently by the same name; while tubercle and melanosis have been united in the same class on the one hand, and melanosis and cancer on the other.

When Béclard, writing of cancer, said, 'This tissue has less consistence than scirrhus, though more than the cerebral substance; is of a milky white, interrupted, when cut, by red points formed by divided vessels: these, in fact, are very numerous; but their walls are very thin, and scarcely support the force of the injection,'—that author was not far off from the efficient cause of the disease; and, had his mind but been in search of that, the probability is that he would have detected the truth, which was thus within his reach.

In tubercle affecting the spleen, I have seen the capillary arteries aneurismal; that they are so in every form of tubercular growth, as well as cancerous, is yet to be proved; meantime, it appears more than likely that, while one common law operates in the nutrition of natural tissues by means of healthy vessels, the deviation from that law is attributable to diseased vessels.

That hemorrhage arises from the rupture of varicose capillaries, is seen in cancerous affections; that it springs from the same causes in all tissues, whether in the pulmonary, cerebral, or any other systems, I would not express a doubt, but that research can immediately decide the proposition. These dilated and attenuated vessels, when the disease which they constitute is superficial, having no mechanical support, become gangrenous; a state which gives rise to the destruction of parts involved in malignant disease, and their consequent removal, not by absorption, but by the disintegration of the outer surface.

The capillaries in a healthy state are of a uniform diameter, their size being about that of the blood globule. From this fact it may be implied that, in all tissues which secrete pus, the capillaries are in a state of dilatation; for the pus globule is generally from one-third greater than, to twice the size of, the blood

globule; consequently the capillaries which secrete the former must be of a proportionate diameter. This simple truth opens to investigation the state of the capillaries through the large class of scrofulous affections, venereal and other abscesses, and suppurating surfaces of every description." 13.

Such is the substance of Dr. Hake's paper. It would be uncandid to deny that the fact of varicose capillaries playing an essential part in morbid growths is an interesting, nay, probably, an important one. But it was always supposed that the capillaries must do the work, and their being enlarged or varicose is, to our apprehension, a natural à priori supposition too. How our ideas of the heterologous formations are to be simplified or enlarged, how we are to explain, or how to treat them, is enveloped (at least we dare to fear so) in the same obscurity as ever. That the mere dilatation of the capillaries in an organ plays a subordinate part in the phenomenon is rendered probable, to say the least of it, by the fact that, if the organ (capillaries and all) is extirpated, the disease too frequently returns elsewhere. Will not chemistry do more than the microscope to help us in this difficulty?

Dr. Hake ventures a few recommendations and hopes in conclusion, recommendations of a hesitating and hopes of a confident character.

"Should this minute inquiry bring other investigators into the same field of research, it is recommended that the examination of the capillaries should be omitted in no instance whatever, whether in aneurism of the large vessels, varix of the veins, hypertrophy and atrophy of organs, or even in diseases affecting the whole system, as inflammatory and febrile affections.

The scientific treatment of malignant diseases has yet to be discovered. It must be founded on experiments made on animals with medicines for the purpose of ascertaining the effect they produce on the capillaries, and on observations of the effects of remedies on the blood, a fluid evidently involved to a greater or less extent in the production of heterogeneous growths. In the mean time, in cases where excision of the disease is impracticable, but where the artery which is distributed to it, and the capillaries of which are aneurismal, is within reach, a ligature might be tried, without danger and with some hope of benefit. And this might be succeeded by venesection and transfusion, cautiously but regularly performed, an experiment which, in prudent hands, could be attended by no danger, but might lead to results which would advance our knowledge of practice in this most fatal class of diseases." 14.

An Inquiry into the Moral, Social, and Intellectual Condition of the Industrious Classes of Sheffield. Part I. — The Abuses and Evils of Charity, especially of Medical Charitable Institutions. London. Longman and Co. 1839. 8vo. pp. 132.

The plan of this work comprises a number of very important subjects in morals and social politics, we give them in the author's own words.

"I. We propose to examine the condition of the charitable institutions of the town; to point out their beneficial and injurious tendencies, and to suggest, in regard to some of them, such modifications as shall increase the good and diminish the evil with which they are fraught. II. We shall investigate the social, intellectual, and moral conditions of the working classes. III. The effects of unions or combinations of workmen, on themselves and on trade. IV. The educational institutions of the town. V. The number, strength, and wealth of sick clubs, and the causes of their frequent inefficiency or insolvency. VI. The consumption of malt liquor and spirits in the town, and the effects of beer-houses on the morals of society. VII. The amount and character of crime for the last five years. VIII. The effects of the poor laws on society. IX. The character of the debts sought to be recovered in the Court of Requests, and of those which are served out in goal. X. The effects of the manufactures of this town on the character and condition of workmen compared with those of other towns where machinery is extensively employed."

The part now published and under review is chiefly occupied with the medical charities of the town, a subject with which the author's situation as medical officer to both the infirmary and dispensary has given him an opportunity of becoming well acquainted. The work evinces much originality of thought and patient and accurate observation, and is written in a pleasing and elegant style, as will be shewn in the extracts we shall have occasion to make from it.

The volume is opened with some remarks on the state of society in Sheffield; concerning the trade, we are told—

"It is exceedingly unlike in its character, and consequently different in its effects, from that which employs the genius and enterprise of Manchester, Leeds, or Nottingham. It stands indeed alone. The statistics of these important towns would throw little light on the constitution of society here. With us the distinctions between master and man are not always well marked. Persons are to a great extent both. The transition from one to the other is easy and frequent in those branches where the tools are few and simple, and the capital required extremely small, which applies largely to the whole of the cutlery department. This circumstance produces peculiar and striking effects on the character and condition of the working classes.

Most of the manufacturing towns in the kingdom have undergone extraordinary changes within the last half century. Manchester, Glasgow, Birmingham and Leeds have, within this period, more than trebled their population and capital, and are now rapidly progressing. Imagination is not daring enough to define the probable limits of their increase. Genius, enterprise, and industry do not admit of severe calculation.

Sheffield has also trebled her population and wealth. She has not, however, taken her proper position among first-rate towns. Her intelligence and wealth are by no means justly estimated. This arises in a great measure from the

nature of her productions. Her merchants and manufacturers cannot become princes. There is not sufficient play for large fortunes, nor would these secure those peculiar advantages which invariably mark their influence in other situations. Novel and ingenious inventions, extensive speculations in the purchasing of raw material, are not features characteristic of our manufactures. The making of fortunes is with us a slow process. It is, however, far from being partial, nor is it unaccompanied with advantages, which are often only incidental attendants on the sudden accumulation of wealth.

If our fortunes individually are much less than those of the merchants of Manchester or Glasgow, the longer period in the making of them allows the mind time to adapt itself to its improved circumstances—not merely the speculative and money-getting part of the understanding, but the whole of its social, moral, and intellectual powers, without which riches are a questionable good under this change. Accordingly, wealth and intelligence are with us more gene rally associated than in towns where immense fortunes are rapidly made."

Speaking of the ignorance and dissipation of the lower orders, the author admits that knowledge is unquestionably the great remedy for these evils, and says, that it is not to be inferred that he is opposed to education or despairs altogether of some good being effected by it; that he has ever been friendly to the diffusion of knowledge, and regards it as the handmaid to every virtue; that his present wish is not to abridge, but if possible to extend its blessings; and that the present enquiry is, indeed, the prompting of that feeling; but that he differs from the zealous advocate of educational systems with respect to the means it is desirable to employ, and the results to which we may confidently look forward. Writers on education, he says, belong to the Martin school of painting. They study effect, but are not practically acquainted with the materials they fashion into beauty and adorn with eloquence. The laws of Nature, on which they pretend to found their systems, will offer insurmountable obstacles. Manufactures and commerce spring from these laws and are in strict harmony with them, and the wealth, distinction, and luxurious enjoyment arising from these will always be motives to action. He says that habits engendered by a palmy state of trade are not corrected by depression. That the young of both sexes are forced early to work, and when thrown out of employment they are with few exceptions disposers of their own time, and that then—

"The temptations are not towards intellectual pursuits or moral obligations. The path in which these lie is too straight and restrictive in its privileges. The indulgence of the passions opens a much wider and more attractive field. Is this the school proper for the future mother? Is it here that the systems of education will reach her, and convert all her sensual tendencies into virtuous emotions, and her grovelling views into high minded and ennobling principles? The systems may play around her head, but they will make little impression on her understanding. A return to prosperity will cause her to retrace her former steps, perhaps with less virtue and fewer good intentions.

These changes and habits are the inevitable fruits of manufactures. The hand of the dyer will ever be imbued with the colour in which he works."

The author of the work before us cannot agree that the beneficial working of the parochial schools in Scotland, and the comprehensive system of education adopted in Prussia, is evidence of the necessity and excellence of a national system of education in this country. He says, in Scotland, where the operation of the schools is efficient, it is in agricultural or thinly populated districts, where wages are low and subject to little variation. That the

more agricultural the occupation, and the steadier the remuneration, the more intense and elevated will be the moral and religious feelings. He says there is nothing in common between Prussia and this country. Prussia possesses only a graduated freedom, and its resources are sufficient for its wants. The situation of the people in that country is enviable, but unfortunately it is beyond imitation.

A national system of education cannot be urged on the plea that the mass generally are too poor to provide for their own mental improvement; for one-fifth of what they spend in dissipation would be an ample fund for the purpose. Education cannot possibly be otherwise than imperfect with the great mass who have to labour for the necessaries of life; whose bodily exertions offer a sufficient outlet for the escape of nervous energy. It is incompatible with the laws of the animal economy, that both mind and body shall toil, and knowledge does not fall upon the understanding like the sunshine upon the flower. That amongst the working classes, at some future time, the duties of the day will be so divided, that bodily and mental exertion will alternate in such a manner that the one will be a stimulus to the other, rather than a process of exhaustion; he says, is not impossible, but is about as probable, as that wings will at the same time shoot from the shoulders, to enable the artizan to breathe a purer air during his intellectual flights. Knowledge is as prone, he considers, to give rise to pride, vanity, and conceit, as to create self-respect or becoming independence. The predominating passion will be determined by the natural constitution of the mind, and the circumstances in which the individual is placed, rather than by the amount of knowledge possessed. He tells us there never was a period when knowledge was so generally diffused as now, and there never was an equal amount of vice, dissipation or reckless conduct.

Now we cannot help thinking that this is looking too much on the dark side of human nature. We see no reason why an enlightened system of education should not perform as great an amount of good in a manufacturing, as in any other population. The fluctuations in wages arising from changes of commerce, must always have an ill effect on the morals and happiness of the people; but education is only the more necessary on this account, as being the best means of enabling them to provide against adversity, and conduct themselves well under prosperity. We consider that the vice and dissipation amongst the manufacturing population has arisen mainly from their pecuniary resources far outstripping their mental cultivation; and one other great cause is the influx of people from all parts of the kingdom to the manufacturing districts, a great portion of whom would necessarily be the worst characters in society, as these are the first to move away from their homes. But we cannot expect this influx to the manufacturing districts to continue in the same ratio. Our author himself remarks, that the strikes amongst the workmen of this country, have thrown our continental neighbours on their own resources—and if this influx should continue, what so likely to stay the evils of it as a comprehensive system of education which will humanize the population throughout the empire, and will put the agricultural labourers themselves in such a condition that, should they remove amongst manufacturers and receive high wages, they will not break out into all manner of excesses. We see nothing in the occupation of the manufacturer incompatible with order and morality, and, indeed, we have personally

known large bodies of the manufacturing population, when they were not in large towns, and were living amongst their own relatives on the spot where they were born, and where their parents had lived and laboured before them—we have known those people to be equally sober and religious, and more intelligent than the agricultural population in any part of the country.

We see no reason why the salutary restriction of labour in childhood, which has already infinitely benefitted the health of the rising generation amongst the cotton and linen factories, may not be extended to other branches of manufacture, with benefit to health, and, joined with a proper system of education, to morals also. We admit that knowledge does not always produce a moral or dignified character, and that the predominating passion will be determined by the natural constitution of the mind, and the circumstances in which an individual is placed, but the natural constitution of the mind is the same, on an average, in all classes of society, yet the majority of the upper and middle classes are sober and respectable, though surrounded by the very objects that afford temptations to the lower orders. Therefore we doubt not that the same intelligence which has put out of countenance the inordinate consumption of wine, once fashionable in the highest ranks of society, will, ere long, have a similar effect on the gin and whiskey of the lower orders. We have been led to conclude, from our own observation and the unanimous testimony of others, that there has been a great decrease of crime and vice of late years, and if this is not the case in Sheffield, that town is a remarkable exception to the rest of the country. Surely cock-fighting, dog-fighting, badger-baiting, pugilism, excessive drunkenness, and chewing tobacco, are not so common there now as thirty years ago, and we should expect that the most indecent songs do not continue to be sung publicly in the streets, and that there is a notable increase of comfort in the homes of the working people.

The measures the author would adopt for ameliorating the condition of the working classes, will be seen in the following quotation, on which we will not comment at present.

"The mass will not be taught, however, to depend on their own exertions by any enlarged views presented to the mind. It must be by making them feel the effects of misconduct and intemperance, and they will never feel them acutely so long as their necessities, and those of their family, are promptly relieved, without regard to the previous earnings or conduct of the individuals. The more that is done for them, the less they will certainly do for themselves. The awakening of their own faculties, or the breathing process, by which the mind starts into conscious existence and vigorous exercise, will mainly be accomplished by throwing them on their own resources. They must not be taught to fall back upon charity, in cases of trivial emergency, as a good to which they have an undoubted right. This feeling takes away all idea of exertion. The sacrifice of independence should not be made without a struggle. The effort to preserve it is salutary, and ought to be encouraged. Supposing, in the attempt, debts and obligations are incurred which compel strict economy, or occasion certain privations. There is nothing hard, cruel, or unjust in this. There would be great cruelty and injustice were it otherwise."

The truth of the following observations will be at once perceived.

"Let the charity, whatever be its nature, hinge on circumstances. To present it as a certainty to all who may choose to apply, without the strictest in-

quiry into the condition, habits, and income of the parties, is to encourage the most flagrant impositions; is, in fact, to hold out a premium to idleness, dissipation and intemperance. Charity should never be on an inclined plane. The path leading to it should have difficulties, but of such a nature, that they neither arrest the efforts, nor for a moment fret the honest feelings of the really necessitous. The indiscriminate exercise of it is the parent of many evils. It is often absorbed not only by improper objects, but the stream, in consequence, does not flow in sufficient abundance to the truly miserable and destitute."

The author then proceeds to investigate the working of the medical charities of Sheffield, and says, that if a thorough searching reform be not carried into effect in them, they will go far towards pauperizing the whole of the working classes. He says, "It is indeed a fact, placed beyond all question, that any number of tickets may be procured for the Sheffield General Infirmary, without the applicants, or their condition, being in the slightest degree known to the parties who recommend. It is not necessary, in this place, to explain how,—the fact and the means are equally notorious. One individual, whose annual subscription is two guineas, recommends to the infirmary almost one-third of the patients, without knowing anything of their circumstances or condition in life." This institution, he says, when first established, was for the poor and necessitous of all nations; and this was understood to mean, such only as were incapable of otherwise procuring the required aid; but that now the artizan never dreams of the possibility of rejection on the ground of being in full and regular employment, and being amply remunerated for his labour.

The following are some of the conditions which, in the opinion of the author, ought to exclude from a participation in the charity. "*In the first place.* Single men in employment have not the slightest claim. *Secondly.* It could not possibly be contemplated to extend the charity to the married operative in work, with only a young and small family. *Thirdly.* The operative receiving high wages, if he please to work, though he may have several children, can have no just claim on the charity. *Fourthly.* The operative who has several sons or apprentices working for him, is in no degree entitled to the benefits of the charity. *Fifthly.* Neither male nor female servants in place, and attending to their respective duties, are proper objects of relief." Before bringing forward facts to show that these conditions have been by no means attended to, the author adduces some general considerations to show that the charity is greatly imposed upon. He says, the distresses of the community must bear a strict relation to the state of trade; there must be more distress when many hands are thrown out of employment, than when labour is plentiful and wages high. Misery cannot be a fixed quantity, always floating in society; and yet, if the registered demand for charity be any criterion, there is scarcely any variation.

"From Midsummer 1835, to Midsummer 1836, between which periods trade was better in this town than it had been known for years, the number of patients admitted on the books of the Infirmary was 3,126. From Midsummer 1836 to Midsummer 1837, between which periods the trade was exceedingly depressed, the number was 3,431, being an increase only of 305 patients. Between the former periods the number of patients on the books of the Dispensary was 2,888. Between the latter periods, that is, from July 1836 to July 1837, the number was 2,575, being less by 313 patients. According to these returns,

there were eight patients more, during a prosperous state of trade, recipients of medical charity, than during the severe depression of it."

He says, he believes the demand for charity will always be equal to the means of supply. It is then shown by numerical tables, constructed from the reports of the Infirmary, that above one-fourth of the patients annually benefitted, think it too much trouble to return thanks, and that this number is greatly on the increase. It is also shown by tables that irregularities amongst the in-patients are also on the increase. From Midsummer 1822 to Midsummer 1827, one patient in 49 was discharged for irregularity, and from Midsummer 1833 to Midsummer 1838, one in every twelve. This is considered another proof of the relief of improper objects, as the truly necessitous are always thankful. Great numbers of Irish labourers and tramps are admitted, who require food, clothing, and rest, more than physic, and ought to be relieved by the parish. Patients are often conveyed to the Infirmary in hackney coaches, not from inability to walk. Females visit the institution in elegant cloaks, shawls, and clogs, and often for very trifling complaints, and for the removal of disease which just perceptibly mars the beauty of the face or neck.

The following is an account of a hundred patients taken indiscriminately on each day of admission, for several weeks at the Infirmary.

" 1.	Single men past the age of twenty-one	15
2.	Persons married, but without family	11
3.	Persons having from one to two children	32
4.	Persons having three children	6
5.	Servants in place	7
6.	Persons having four children	10
7.	Widows	7
8.	Single women, in no permanent situation	2
9.	Persons having five or six children	4
10.	Apprentices	2
11.	Persons having seven or eight children	2
12.	Widowers	2
		100 "

The author says, if the single men have been ill long and have exhausted their resources; or if they have had no employment for a considerable period, they are proper objects. In thirteen out of the above fifteen cases, however, it was found on inquiry to be quite otherwise. Of these thirteen, "nearly two-thirds were admitted into the house, and some of the others made application, assigning as a reason, that they would be much more comfortable than at home. Several were members of sick-clubs, and had given notice of their situation, so that whilst they were maintained by the charity, and afforded every proper indulgence, they were at the same time receiving ten shillings a week from the club." The private circumstances of the remainder of the hundred patients are inquired into, and the majority are found not to be proper objects of charity. The widows and women in no permanent situation, are considered true objects of charity. Some of the people having a number of children, were in needy circumstances; others

not so, their children being grown up and receiving wages. The maid-servants and apprentices are considered the most objectionable item of all, as their claim is upon their employers, and it is only when they become unequal to their duties and are thrown upon their friends or their own limited resources, that they become entitled to relief.

At the time the author was writing, the infirmary contained 77 in-patients, of whom he gives the following list.

" In the first place, single men	19
2ndly, Single women	6
3rdly, Persons married but without family	11
4thly, Men married, and patients with one or two children	5
5thly, Women married, and patients with one or two children	5
6thly, Persons married, with three children	5
7thly, Persons married, with four children	3
8thly, Persons married, with five or six children	2
9thly, Persons married, with seven children	1
10thly, Widows	4
11thly, Widowers	5
12thly, Apprentices,	3
13thly, Children patients	7
Total	77 "

The occupations of all the men are enumerated, and it is concluded that two-thirds of the 77 patients were by no means in adverse circumstances, and that several of the others were proper objects for the poor-house. We extract the following.

"There is another fact much more important, and deserving the most serious consideration, namely, *the rapidly increasing number of Irish applicants.* We do not allude to them as improper objects. The fact is valuable in this relation, but much more in connexion with the condition of their country, which, if permitted much longer to continue, will extend its demoralizing and pauperizing effects throughout the whole of England. To the consideration of this interesting subject we shall return. Ten of the forty-six adult male patients are Irish."

Respecting the funds of the Infirmary we are told,

"For several years past the annual subscriptions and landed property of the Infirmary have been found altogether inadequate to cover the current expenses of the establishment. The deficiences have been met by frequent and handsome legacies, but which being incidental and not permanent resources cannot possibly be calculated upon for the future. If they fail, one of two results is inevitable, the gradual absorption of the funds, or a diminution of the usefulness of the charity proportionate to its limited means. It is questionable whether both be evils. The latter would indeed be a serious one; it does not, however, necessarily follow from the former. *Charities are seldom liable to great abuses when depending on the sympathies and liberality of contemporary benevolence.*"

The author then gives an account of the other medical charity in Sheffield, namely the Dispensary, illustrated also by statistical tables, by which it appears that this institution is as much imposed on by improper objects as the infirmary, and that the ingratitude of the patients is greater, for not one in three takes the trouble to return thanks.

He considers, and we think justly, that this indiscriminate charity is attended with great evils to society.

"This departure from the rules is accompanied with a moral effect, of greater importance to society than the misapplication of the funds. As already stated, by such conduct we are teaching the first injurious lesson of asking charity. We are breaking down the bulwarks not only of independence and a proper feeling of pride, but, indeed, the outposts of virtue itself. The mind is trained to look down, and this is always at the expense of those fine and delicate perceptions of propriety, which cannot be too carefully cultivated. The precincts of a charity have a deadening influence on its numerous and hungry expectants. Physical evil may be alleviated, but the high-toned morality of the mind is lowered."

The board room of the infirmary is very ill attended, and on an average two out of every three of the recommendations to both institutions are given by persons to whom the circumstances of the applicants are almost entirely unknown. For the reform of these abuses, the author suggests the adoption of the following printed form of recommendation, by which the recommender would be compelled to analyse the circumstances of the applicant.

1. Name, age, and residence.
2. Single, or married. If married, what family under nine years of age?
3. Trade of the husband, father, or patient?
4. For whom does he work?
5. Name of the recommender.
6. The disease.

And as a further protection against imposition he recommends the weekly publication of these particulars in a tabulated form, in the newspapers of the town. Leaving out, however, the name of the disease.

We entirely agree that the distribution of charity to every one who may ask is a great evil, and exerts a demoralizing influence, and that the circumstances of the applicants ought in every case to be enquired into; and we think the printed form of recommendation proposed by the author, a valuable means of promoting this inquiry. However, we cannot concur to the full extent in the stringent measures advised in this work. Though a person may have no children, or only one or two, we do not agree that he is always an improper object, before long illness or want of employment has reduced him to a state of entire destitution; there is charity in preventing misery, as great as in relieving it. And if a man has been intemperate and extravagant, we are not amongst those who think extreme adversity the best school for teaching morality; we do not say, let him and his family feel the effects of pinching want. Illness is a severe affliction of itself. And especially we cannot agree that it is desirable debts should be contracted. When a person is ill he may die, and the reflection that he is buying that for which he can never pay, is not calculated to strengthen his morality or comfort his last hours. If an unmarried man, he is probably lodging amongst strangers, as numbers are in every large town, and what sort of attendance and watching can he expect for the promise, that if he recover he will repay those around him? Although extreme profusion in charity is calculated to undermine the spirit of independence amongst the working classes, extreme niggardliness will not encourage it; unless, indeed, that kind of independence which would lead them to hustle respectable people from the pavement, as

they pass them in the street. We do not think the subscribers to medical charities will consent to exhibit the names of those benefitted in the newspapers, nor do we think they ought. The feeling of self-respect which the author justly considers so important, is intimately blended with the desire for the respect of others, so that though this measure might deter many people from applying for charity, we doubt its good effect on those who would receive charity. Besides it would be very harsh that people of sensitive feelings, and those who had moved in a better circle of society, should be deprived of relief till they were willing to have it at the expense of a public exposure of the circumstance in the newspapers.

We give the following quotation, although we do not anticipate the calamity to which allusion is made.

"The tendency of the present age is a mania towards the establishment of charitable institutions. It runs riot in a wild undefined wish to do good. Such liberality has always been the most marked in the decay of nations. It is one of the unequivocal precursors of that decay, and tends powerfully to aggravate the evils which it attempts to correct."

The number of persons receiving gratuitous medical aid in Sheffield is about 6,000 annually. Sheffield we are told contains 100,000 persons, and is surrounded by a densely populated country, so that it may be fairly estimated that about one in twenty of the population is thus relieved. In London, containing a million and a half of people, about 250,000 receive gratuitous medical aid annually, which is one-sixth part of the population. Many persons, however, both here and in Sheffield, are no doubt entered more than once during the same year.

There is one evil of indiscriminate medical charity which is only hinted at in this volume, namely, its injury to the medical profession. The working classes are the natural support of the commencing practitioner, and afford him a means of introduction to more profitable practice. These, and even the class above them, too often flock to charities; and we know of no cause which has so powerfully contributed towards degrading the greater part of general practitioners in this metropolis into the condition of shopkeepers, as the boundless profusion of gratuitous medical relief, showered down generally on all who may ask, without the slightest inquiry.

Although we have had to express our dissent from some of the opinions delivered in this volume, we believe it will lead to a searching enquiry on the subject, and occasion the reform of abuses in the medical charities both at Sheffield and other places. We consider that the author (who has not prefixed his name to the work) has conferred a benefit on society by his labour.

THE PRINCIPLES AND PRACTICE OF MEDICINE, FOUNDED ON THE MOST EXTENSIVE EXPERIENCE IN PUBLIC HOSPITALS AND PRIVATE PRACTICE, AND DEVELOPED IN A COURSE OF LECTURES DELIVERED AT UNIVERSITY COLLEGE, LONDON. By *John Elliotson*, M.D. F.R.S. With Notes and Illustrations by *Nathaniel Rogers*, M.D. &c. Joseph Butler, London, 1839. Octavo, pp. 1088.

WE confess it was with some degree of apprehension lest the untoward subject mesmerism should obtrude upon our notice, that we first turned over the pages of this work. We are glad, however, to find no allusion to that cunningly devised fable; and feel persuaded that Dr. Elliotson himself, sooner or later, will by no means regret the omission. The records of the practice of mesmerism had been sorry company for the goodly array of sound theories, clear philosophical expositions, and judicious views here set forth. Would that such a consideration had operated to prevent the late transactions at University College! And it ought to have done so; for if mesmerism were "as gospel true," its Apostles could never reasonably claim admission for it into the temple of science, until it had been *proved* not merely as not a fiction, but as an assemblage of indisputable facts and phenomena demonstrative of some natural law of rational theory. Those great discoveries which, at their first promulgation, were so violently assaulted and derided, were of this character, and, even in the height of their disrepute, every man of competent intellect, who examined into them with sincere and unbiassed feeling, might have ascertained their basis upon the eternal rock of truth. Moreover, these were elaborated and wrought out in the closet through many long years of patient investigation: they were not thrust into notice, nor exhibited on a stage to groups of idle and wondering spectators. Silently and calmly they withstood opposition, ridicule, and persecution; and at length, by their own innate power and worth, won their way to the eminence they now and ever will enjoy. But animal magnetism has been introduced to our notice in such harlequin garb and gesture; playing such fantastic tricks—appealing so much to the senses, and so little to the reason—striving to dazzle and amuse rather than to instruct and convince—that we are inclined to say, "thou com'st in such a questionable shape, we'll call thee '*humbug*.'"

We do not deny certain of the extraordinary phenomena ascribed to mesmerism, but are not some cases of catalepsy, chorea, trance, &c., equally extraordinary, and equally capable of being traced to an unwonted and morbid state of the nervous energy, rendering it susceptible of influences before unknown and unnoticed, especially perhaps of agencies accounted trivial in a healthy and normal condition of the system. We may instance inflamed membrane and muscle as analogous to this *status*, and particularly those cases of neuralgia in which the slightest touch will cause exquisite pain, while strong pressure has no such effect. Then we have to consider the exciting causes—the presence and close contact of the magnetiser—an individual of the opposite sex—the consciousness that his eye, his thoughts,

his manipulations are directed and concentrated upon the patient's self;—the expectation of certain predicated effects, the excitation of an imposing assembly, the contagion of example, &c.: all those influences acting upon the imagination, which the circumstances suggest to the reflecting observer, and which we think quite sufficient to account for the genuine phenomena. Moreover we must not forget that the disorders of the nervous system to which females are peculiarly subject, as hysteria, chorea, &c., are *sometimes* to a considerable extent under the control of the will.* "De reliquo," it is doubtless sheer fraud and deception, as in the instance of Miss O'Key, whom we scruple not to designate a first-rate actress in her line. We need only refer to her performances at University College a few months since, when in the height of her fame, and evidently progressing in the practice of her art. If her career had not been checked, we wonder how far her impudent reliance on the gullibility of mankind would have carried her: she had already ventured on prophecying. Pity it is she had not flourished a few centuries ago, she had then vied with the Cumæan Sybil, and might have practised her vocation without fear of sceptics and revilers like ourselves. Had Greece been honoured as the land of her birth, she might have attained equal celebrity with the sages of antiquity: for, like Socrates, she has her demon or familiar, alias the *negro;* to whom she appeals for direction, and who opens to her the mysterious future. Seriously it is matter for regret as well as surprise, that a man of Dr. Elliotson's extensive acquirements and long experience should have become the dupe of an artful girl, and the victim of such a farcical delusion. At the same time we would not for a moment doubt or impugn the sincerity of his motives, and the perfect good faith of his conduct in the affair of mesmerism; and, we dare to say, he considers himself a martyr suffering like Galileo and Harvey in the cause of truth and science. We expressed surprise at this hallucination in Dr. E., for who could have supposed that he who in his "Physiology" argues so strongly against the doctrine of an immaterial principle or spirit, should so readily take up with the supposition of an ethereal vital communicable fluid, transcending all the known laws of physics, and which, if it do exist, would appear to be a kind of "via media" between matter and spirit; but more closely allied to the latter, according to the usually received ideas of a spiritual essence. But enough of Animal Magnetism, our readers will begin to say, we have had it brought before us *ad nauseam*. We will turn then to the work before us, merely congratulating the author and the public that it contains not a word about mesmerism.

This volume is inscribed in a very neat dedication to Lord Brougham, and

---

* Dr. E. seems quite aware of the Protean forms and marvellous phases which the nervous complaints of females are apt to exhibit. Thus at p. 738 of the work before us he says, "Very extraordinary cases independent of organic disease are to be seen in young women. Cases are continually seen of so extraordinary a nature, that you would not believe in their accuracy if you merely read them in books. I recollect very well seeing a young lady, single—for these cases almost all occur in single ladies," &c. Again, speaking of France, prior to mentioning a case, he observes, "these strange things generally occur in females," (p. 547.) We may also refer to his remarks on hysteria, (538 et seq.) and on *fidgets*, (p. 544.)

is ushered before the public by the editor, Dr. Rogers, in the following apposite terms:—

"One of the most striking circumstances which have distinguished the medical literature of recent times, is the publication of the Lectures of various eminent Professors. Till within the last few years, hospital-theatres, as well as hospital-wards, were (except to the limited number of attendant pupils) as "a spring shut up," and "a fountain sealed." It would have been of the greatest advantage to medical men, and through them to the public at large, could these class-rooms have contained the whole profession. But what the architect could not do, the printer has done. He has given the Lecturer a voice, which penetrates as far as our language is known; and the results of his study and experience have been wafted, on the winds of heaven, to every quarter of the globe. Beginning with Sir Astley Cooper, the masters of our art, in brilliant succession, have thus been enabled to pour the accumulated treasures of their knowledge at our feet.

The name of Elliotson stands too high in the estimation of the Medical Profession, to require any apology for the publication of his Lectures;—replete, as they are, with sound practical information;—the result of long and extensive experience. There can be little doubt, therefore, that the present undertaking will be hailed with satisfaction; and that a due share of support and encouragement will be awarded to the enterprising publisher, for producing this work in a style commensurate with the valuable information it contains."—*Preface.*

As we shall have occasion hereafter to advert to the praiseworthy manner in which the editor has fulfilled his office, we pass on to notice the general features and contents of the work.

In his Introduction the learned Professor points out the value and necessity of medical lectures and clinical instruction, the advantages of a museum, the superiority of hospitals and dispensaries, and the imperative need of having a hospital attached to the school where medical and surgical precepts are delivered. He makes the following very appropriate remarks on the education of the youth of our profession.

"No better education is given by parents to those children intended for medical practitioners, than to those whom they destine for trade; and at the same time when the best part of general education should begin, the youth, with all his capabilities of literary and philosophical attainment, is hurried off to mix draughts and weigh powders, the greater part of the day, for several years. The portion of time thus consumed, and the sum of money thus expended, would enable the youth of our profession to attain every acquirement of a high education. The young men who come to our schools, to prepare themselves for general practitioners are, in the majority of instances, as gentleman-like in their sentiments and manners, as intelligent, as anxious to learn everything that their instructors are disposed to teach them, as those who are sent to Oxford or Cambridge,—as young men of whatever station in society, and in the previous enjoyment of whatever advantages. I trust that ere long the five years' apprenticeship to learn the business of the dispenser, or (as that might be learned in as many months) I should rather say, the five years' apprenticeship to waste their time as shopmen, will be abolished; and instead of the present preposterous regulations, of five long years in the shop before a limb is dissected,—before a lecture on Anatomy, Chemistry, or any other subject is heard, and two years only in systematic public study,—in dissecting and attending so many lectures, and in gaining the experience afforded by the medical and surgical wards of hospitals, and in reading (which previously would have been fruitless), —the youth will, through the medium of such establishments as the London

University, acquire a good classical education, a knowledge of the three great continental languages,—the French, German, and the Italian,—and no inconsiderable acquaintance with Mathematics, Physics, and Mental Philosophy. By a change of plan, and by practicable facilities, I am confident that all this may be accomplished with no great increase of expense; and the young practitioner be ready for the commencement of his active career, at the age of two or three and twenty; and no one will deny, that a given expenditure of money and of time, ought to be made to produce the greatest possible advantages. These facilities will all be amply furnished by this University; and I hope that the Apothecaries' Company will one day be better pleased that those young gentlemen who go before them, should adduce testimonials of a respectable classical and mathematical education, a capability of reading the German, French, and Italian writers in the originals, and the possession of a share of Physics and Mental Philosophy; than if these young gentlemen proved they had consumed five years, when the mind thirsts most ardently for knowledge, in drug mixing, or such poor and desultory instruction as a private practitioner has time to bestow." 8.

"If I am told that this improvement in education will make the general practitioner equal in knowledge to the physician, I reply that this will rejoice me beyond measure. I have no desire that the importance of physicians should be maintained by the depression of the general practitioner." 9.

The Doctor is not an advocate, however, for "one faculty," and his subsequent observations will tend, we imagine, rather to neutralize the effect of the above admission on the minds of the "levellers;" since after conceding thus far, the "rock of offence" remains still the same; it is in the barrier where lies the grievance. The physician allows the general practitioner to attain the same eminence where he himself stands, but immediately he takes a stride upwards, so that the relative distance between the parties is still just the same as ever. The remarks to which we allude are these:—

"If the physician is to continue as superior to the general practitioner as he formerly was, he must advance in the same proportion; he must not presume to think of preventing the general practitioner from stepping towards him; he must also step forward himself, to maintain his advantage. The physician whose means have allowed him to spend more time than the general practitioner in his literary and scientific education, and in the subsequent study of his profession, and has spent it industriously: and who, when in practice, and exempt from the toils of midwifery, and the other distractions which beset the general practitioner, and having not the whole of the art, but one branch only to cultivate, employs these advantages as his sense of duty must dictate,—will always acquire every reasonable advantage; and general practitioners will gladly avail themselves of his assistance, and will be proud of him as the supporter of the character of the profession." 9.

He thus expresses his deep sense of obligation to the body of general practitioners:

"When I commenced my professional career, I determined upon seeking for success by working hard; and by conducting myself as well as the infirmity of human nature would allow. I determined, however long I might wait for success, never to fawn upon and run after my superiors, nor to stoop meanly to my inferiors: never to intrigue for an advantage, nor to employ trumpery artifices for making myself known to the public. For many years I toiled; and saw most of my contemporaries, nay, of my juniors (who worked less, but were wiser in their generation) pass by me. I published work after work—edition after edition; and paper after paper was honoured with a place in the Transac-

tions of the first Medical Society in Europe. I was physician to a large metropolitan hospital; and had attended there, and gratuitously out of doors, above twenty thousand patients. But in vain. In 1828 my profession was no more lucrative to me, was as short of my actual expenses, as it had been in 1818. At that time the *Lancet* was pleased now and then to publish a clinical lecture, delivered by me at St. Thomas's; and my practice at once doubled. The following year it published the greater part as I delivered them; and my practice doubled again. Last season the *Lancet* published them all; the *Medical Gazette* followed its example; and my practice has now doubled a third time. This astonished me; the more as my clinical lectures were generally delivered with little or no premeditation: while all that I published myself had cost me great labour, many a headache, and much midnight oil. It was through the general practitioners, in the large majority of instances, and through general practitioners, for the most part, with whom I had not the honor of any acquaintance, that the publication of those lectures accomplished my success. To the body of general practitioners, therefore, I owe a debt of gratitude. They have called me forth spontaneously from no interested motive; and I cannot exert myself too much in the education of their successors."* 10.

Having finished his "introductory remarks," our author proceeds to make some "general observations" on the laws of matter; the causes of diseases, as mechanical violence, sudden alternations of temperature, bad air, unwholesome food, &c.; the characteristics of disease; the division of diseases into functional and structural, local and general, acute and chronic, &c. He manifests a very laudable anxiety that his auditors should have a correct notion of the meaning of the phrases employed, for instance—

"You will find that diseases are also considered, by some, accordingly as they are *active* or *passive*;—that is to say, accordingly as they are attended with a degree of violence or excitement of the system, or no excitement at all. You will find some persons (indeed a large number) use the terms '*active*' and '*passive*,' and '*acute*' and '*chronic*,' synonymously; but this is an error against which I am particularly anxious to guard you. It does not follow because a disease is acute—that is to say, exists for a short time, and then terminates—that it is necessarily attended by violent symptoms; nor does it follow, because it lasts for a length of time, that these symptoms should not be active. This is every day illustrated in the case of rheumatism. It is daily spoken of as acute or chronic, and active or passive; the term acute being used indifferently with active, and chronic with passive: so that, in the chronic form of the affection, a person would not think at first of applying such remedies as in an acute attack; taking it for granted that, as the disease is chronic, there is no violence; but that a slowness of mischief is going on, and that the remedies for the active acute state are improper. But you see cases of rheumatism every day, which have lasted for six or twelve months, or even longer, attended with all the symptoms of an acute disease;—that is, attended, if not by quickness of pulse, by heat of the parts; and if you take away blood, you find it buffed. It would,

* We think our reviewer might here have noticed a remarkable fact—namely, that the very man and the very vehicle which doubled, quadrupled, and sextupled Dr. Elliotson's practice, and consequently his fame, did, a few years afterwards, annihilate the one, and damn the other! We need scarcely allude to the exposure in Bedford Square, and the "crowner's quest" on the sayings and doings of the O'Keys. Would the reputation of a Baillie, a Cooper, or a Brodie, together with the emoluments of their practice, have risen and sunk in this rapid manner! Our readers may answer in their own thoughts!—*Editors.*

therefore, be a serious error, if you were to consider '*active*' and '*passive*,' as synonymous terms with '*acute*' and '*chronic*;' because in acute diseases, the word '*acute*' refers simply to their short duration; and in chonic diseases, the word '*chronic*' simply to their long duration; whereas the word '*active*' refers to the violent disturbance going on, in the system or part, and the word '*passive*' to slow changes,—changes not of a violent description. A *chronic* disease may be *active;* and an *acute* affection may be *passive.* A person with an acute affection may lose all his powers, and the whole functions of the body may go on in the most languid way; and therefore acute and chronic are one kind of thing, active and passive are another. An *acute* affection cannot be *chronic*, but it may be *passive:* and a *chronic* affection cannot be *acute*, but it may be *active.*" 17.

"With respect to the *causes* of disease, you will find them generally divided by authors into two,—the *remote* and the *proximate.* The remote causes, again, are divided by systematic writers into two more, *predisposing* and *exciting.* The word '*cause*,' however, is in these cases used in a totally different sense. When we speak of '*remote* causes,' a very different idea presents itself to you than when we speak of '*proximate* causes;'—in fact, the cause of the disease, properly speaking, can only be remote. For example, the remote cause of fever may be bad food, and the depressing passions; and the exciting cause may be, according to some, a specific contagion. Now the remote causes of the first description are called *predisposing;* they render the body liable to become the prey of something, which has a tendency to excite the disease. The exciting cause of the disease might have had no effect, unless the body had been predisposed: and the predisposition might not have had the effect, unless the exciting cause had occurred. A circumstance, therefore, which inclines the body to become the subject of disease, is called a predisposing cause—*causa prædisponens;* that which actually excites the disease, exciting—*causa excitans;* and both together are called *causæ remotæ.* They are called remote, I presume, because they are a little distance from the disease itself; and because the proximate cause is, to all intents and purposes, close to and all but the actual disease; and, in one sense at least, it is the disease itself." 19.

"The application of this term gives rise to a great deal of confusion to the student. You would imagine that disease could be nothing more than disease; and to call the disease the proximate cause, would be thought absurd; but the reason of this I will explain. In defining any particular disease, we are obliged to take into our definition only what we observe; just as the naturalist defines any flower, or any mineralogical specimen, by merely taking what is the object of sense, and describing it with all the marks together; and thus we have what is called the definition of a disease. For example in jaundice you take the yellowness of the skin, the yellowness of the eyes, the yellowness of the nails, the whiteness of the fæces, and the high colour of the urine, together; and you say that the patient certainly has jaundice. The jaundice is not the disease, strictly speaking; but the collection of symptoms under which the patient labours, is called jaundice. The word '*disease*' is thus applied by nosologists, not to the single *cause* of all these symptoms, but to the *collection* of symptoms. Take epilepsy: a person falls down, foaming at the mouth; struggling in every limb; perfectly unconscious; and, afterwards, when he ceases to foam and struggle, he lies senseless; such a person is said to labour under epilepsy. These particular symptoms, blended together, occurring in succession, are called epilepsy. Now in Cullen's, and other methodical nosologies, you will find the disease defined according to mere symptoms;—all opinion, all cause, is excluded. You take merely the symptoms, and you call them the disease; and it is perfectly right that it should be so. But these symtoms must have a cause; there must be a cause for this disturbance in epilepsy;—there must be a cause for the bile going into the blood in jaundice, appearing in the urine, and not being able to find its way into the fæces. The cause of the epilepsy, or of the jaundice, is

the circumstance that produces all these effects, and that is considered to be the 'proximate' cause. If the epilepsy arose from a piece of bone depressed upon the brain, you would say the proximate cause of the epilepsy was the speculum of bone. If the bile were obstructed because a calculus was impacted in the hepatic duct, you would say the impaction of the calculus was the proximate cause of the jaundice. You therefore observe that the proximate cause is, in fact, the disease itself;—the actual disease from which the symptoms arise. But it is necessary you should know, that the term '*disease*' is employed by methodical nosologists, and must be so by me to signify a collection of symptoms, and not the true cause which is at the bottom of those symptoms." 20.

We cannot conceive how the cause of a disease can, without an abuse of language, be called the disease itself. Both the etymology, and common-sense use of the term disease, implies effect and not cause; and the same thing cannot be at once both cause and effect. Let us consider the above illustration of the proximate cause of epilepsy a little more closely. A spiculum of bone may irritate the brain, and cause epilepsy; and since the spiculum of bone is the "proximate cause," which is "the disease itself;" therefore a piece of bone is a disease! And so of the impaction of a calculus in the hepatic duct as the proximate cause of jaundice. On referring to Hooper's Physician's Vade Mecum, (dedicated, we observe, to Dr. Elliotson,) the proximate causes of epilepsy and jaundice, as above explained, are enumerated among the existing causes of those affections, and the "proximate cause" of jaundice is defined to be "the absorption of bile into the sanguiferous system." While, in the introductory part of this work, "proximate cause" is said to mean "the exact condition of an organ when its structure or function is diseased," (*Vade Mecum*, p. 11.) Darwin, with more propriety, designates this "proximate cause" *proximate effect;* but he is censured by Dr. Mason Good, (Nosology, Prelim. Diss.) who observes, "by proximate cause is generally understood the most striking or characteristic symptom of a disease; while his (Dr. Darwin's) "proximate cause" is the *remote cause*, as the phrase is commonly explained. Confusion must naturally result from such conflicting definitions, and we would adjure the use of the term "proximate cause" altogether, if it could not be employed in a less ambiguous and contradictory sense.

Instead of "predisposition" to certain diseases, our author would rather say "want of indisposition." It is manifestly inconsistent to use the term "predisposition" as a cause of diseases resulting from mechanical injuries, where the natural constitution of the animal fabric, or the condition of the part as an organic structure, is all that is previously required, in order that certain results may follow the infliction of the external violence. We do not see why instead of predisposition, the term *disposition* should not be used, which would indicate the state induced by what are often called "exciting causes," viz. stimulating and depressing agencies. We cannot quite coincide in the following sentiments, and, from a foot-note of the editor's, he appears to think with us:—

"We must not, in medicine, be very nice about the etymology of our words;—that is to say, we must employ words of a certain meaning, so as to be clearly understood; but we shall find words signifying something very different from what their etymology would lead us to suppose. Nor is this remark confined to Medicine: it applies equally to Anatomy;—and our only object should be to become understood among ourselves;—to know what ideas are meant to be conveyed, when certain expressions are used." 26.

A conventional use of terms is all very well, if it do not create discordance, as is too often the case; and it is greatly to be regretted, that coiners of technical terms, and authors in general, have not had more regard to the exact etymology of words: it would have prevented many barbarisms, much confusion, and those repeated changes and synonymes which perplex as well as tax the memory, and often mislead the understanding. Precision in language is always auxiliary to precision in ideas.

In this preliminary part of the work, and subsequently, we meet with perhaps rather too much of recapitulation; for instance, a great deal that is stated at p. 17—18, occurs again, with some modifications, at p. 24—25. This repetition is certainly often required in teaching the elements of a science; it is necessary for the tyro to have "line upon line" and "precept upon precept," but we think it superfluous in a work calculated for the use of those to whom such information must be quite familiar. A work of this value will find its way into the library of every practitioner in the kingdom.

Having considered the six non-naturals, (as they have been absurdly called,)—the temperaments,—diathesis,—the inferences to be drawn from the senses,—the surface,—the pulse,—auscultation, &c. the learned Professor proceeds to notice the method he intends to adopt in speaking of the various subjects he has to enunciate. He avows himself a decided enemy to methodical and nosological arrangements.

"Now, however useful it may be to arrange diseases slightly, for the purpose of memory, and for the purpose of general views, I think it must be confessed, that all these various *methodical nosologies* only perplex and encumber the mind. I studied the arrangement of Dr. Cullen formerly very minutely, and had great part of him at my fingers' ends; but I confess that my knowledge of it now is but of a very superficial kind, and that it was never of any use to me. The arrangements of Drs. Young and Good appear to me just as useless; and I would not, if I were to advise you honestly,—and I hope I always shall do so,—I would not advise you to plague yourselves about nosological arrangements. My own experience tells me that it is a much greater plague to recollect the arrangement, and all the hard words, than to recollect the things for which the arrangement is made. I never found it of the slightest use; any more than the barbarous jargon of the *Propria quæ maribus*, and *Quæ genus* of the Latin grammar.

The most natural mode, in my opinion, in which we can attempt to arrange diseases in our mind,—that which serves best for the purposes of recollection (for an arrangement is certainly useful; although I am not an advocate for a *methodical* one, so called) is a two-fold arrangement; first, as to the nature of affections in general,—whether they are inflammatory, structural, functional, mechanical, or parasitical (for whenever we see a case, we immediately consider what is the kind of affection); and then, secondly, as to the part in which the affection occurs. This is the arrangement which I shall follow. I shall first consider general diseases,—such as affect every or most parts of the body:—inflammation, scrofula, and various other organic diseases; and afterwards, having considered all the affections which may attack any part of the body, I shall proceed to consider those affections, and all others, whether functional, mechanical, or parasitical, as they attack the body from the head downwards—*a capite ad calcem*. I think we all make two inquiries in considering any case;—the one is the nature of the disease, and the other is the situation of it." 59.

In accordance with his plan, our author first considers general affections, as inflammation, hæmorrhage, change of structure, &c.; next universal dis-

eases, as scurvy and chlorosis; he then treats of fevers,—intermittent, continued and remittent; and then of cutaneous diseases, among which he classes the exanthemata. He forthwith enters upon the diseases of the interior, commencing *a capite*. This method being pursued, one might naturally inquire, where are those affections classed the exact seat of which cannot positively be determined,—which attack sometimes one part and sometimes another, or which implicate distant parts? They are thus disposed of;—tetanus, chorea, neuralgia, hydrophobia, &c., are considered among diseases of the head; as also spina bifida, which is placed between convulsions and delirium tremens.

But we must allow the Doctor to explain this discrepancy, although, in so doing he departs somewhat from his original plan. Speaking of tetanus—

"This disease may not have its source exactly in the head, but in the spinal marrow. I am, however, an enemy to all strict arrangement; and therefore I shall speak of it, and all other diseases of the spinal marrow, at the same time that I speak of those of the head. The head contains the chief part of the nervous system; and it is more convenient to speak of diseases of the nervous system at large, when speaking of the head, than to divide them, and speak of them at distant intervals." 479.

Gout is treated of subsequently to affections of the urinary organs, and is followed by rheumatism, which completes the course. We are thus, according to promise, conducted by gradual descent not only "*ad calcem*," but "*ad pollicem pedis*."

We will now give a specimen or two of the style in which the various topics are handled: but first advert for a moment to our author's fondness for physiological disquisitions which is often apparent, some may think too much so, especially when the conclusions are after all conjectural. At p. 78 et seq. all that relates to the cause of the buffiness and coagulation of the blood, as connected with the "Practice of Medicine," might be contained in one page; and at last we have the honest acknowledgment—

"I cannot ascribe the coagulation of blood either to its life or death, or to its escape of carbonic acid. I therefore beg to say, that I do not know why blood coagulates. I am not satisfied with the reasons that have been given; nor am I not prepared to advance another reason instead of them; and it is always a great point gained to know one's ignorance.

The real cause, therefore, of the buffiness of inflammatory blood, certainly is not the slowness of the coagulation; but from what it proceeds, I do not know." 79.

"Nor am I not prepared," should be "nor am I prepared."

In common with Willan, Rayer, and others, Dr. Elliotson classes measles, scarlatina, small-pox, and even plague, among "cutaneous diseases," the two former in company with erythema, roseola, and urticaria, as *exanthemata* or *rashes;* variola under *pustulæ*, and plague under *furunculi* or *boils*. Now, whether they be called exanthemata or not, we think the ancients were right in considering them "eruptive fevers:" they are essentially pyrectic or inflammatory—they have all the characteristics of fever, accompanied with an eruption; but we view the skin as implicated only secondarily, while the prime mischief resides far beneath the surface.

We are glad to find the doctor protesting against the necessary subdivisions, changes, and pedantic epithets of some authors. Speaking of strophulus:—

"You will find it divided, by authors, into a number of tiresome varieties; which only serve to burden the memory, and are soon forgotten when you come to practice. The great point which I would urge upon you at present is, to recollect the characters of disease *in general;* and as to the particular *varieties*, learn them afterwards, as different cases present themselves to your notice; and then do not trouble yourself so much about the *names* of these varieties, as about remembering the fact that there *are* some varieties in the appearances of the affections; and still more (what is not enough dwelt upon by subdividers) some varieties in the condition of the *system*, and of the *part affected* in these diseases." 332.

Again, of erythema and roseola, and of lepra—

"To shew you the absurdity of separating these two diseases, I may mention that one is called 'red patches, variously figured and irregularly diffused;' and the other is called 'red patches, or diffused redness.' I am sure it is frequently impossible to distinguish between these two diseases. The different varieties of erythema are much more unlike each other, than many cases of erythema and roseola," 342.

"You may remember that sometimes it is very white; and sometimes black. That will do as well as remembering *vulgaris*, *alphoides*, and *nigricans*. It is a great mercy that we have no other names given for the intermediate shades." 379.

What will he say to the "dermocaceccrises, dermocryptoncoses, trichodermo-atoxapathy," &c. of a recent author, which are almost as bad as the "spondylexarthreticus, and hydrocatarrhophicus" of Plouquet. We ought to be thankful we have not many of these cacophonies.

Further on, likewise, speaking of the "sonorous respiration" in bronchitis, he observes, "some choose to use the Latin word *ronchus;* and some say *râle*, and would not say *rattle* for the world, because it is not scientific." Not so much perhaps because it is not "scientific," but because it is not *fashionable*. It would puzzle any but an Englishmen to know why *râle* should be preferable to *rattle; bruit* to *sound; scie* to *saw*, &c. If our language were very meagre and contracted, there would be sufficient excuse for borrowing of our neighbours; as it is, by this absurd deference to the French, we only increase their national vanity, which is capacious enough, Heaven knows; and such conduct is not reciprocated by them, for rather than adopt an English word, if they had not one of their own corresponding to it, they would manufacture one.

We are sorry that we cannot extract largely from the pages devoted to phthisis and diseases of the heart, which are treated of in a style commensurate with their vast importance. Almost every subject exhibits great research and acumen, original and comprehensive views, and an extensive acquaintance with physiology, pathology, and all the known resources of the healing art. Some affections which are scarcely noticed in other works, as glanders, hay-asthma, &c. are also considered; and there is much interesting detail connected with these topics.

In addition to the sterling practical matter in which the work everywhere abounds, we have all the charm of varied and lively illustration, drawn not merely from writings strictly medical, but from the pages of history, poetry, and general literature; so that the casual reader would be surprised to find many parts of the book as entertaining as a novel; for instance, idiocy, insanity, and other topics. The Doctor has not thought it necessary to be crabbed

and technical, dry and repulsive. He has evidently striven to render his subject inviting to his auditors; to be "all things" to them, that he might win their affections and attention, and thus inculcate the more successfully the great and important truths he had to convey. We are also happy to bear testimony to the spirit of candour and fairness that the work exhibits; there is occasionally, it is true, a dash of egotism, but it is by no means offensive, and we look in vain for instances of that dogmatism and overweening conceit with which some of Dr. Elliotson's enemies are accustomed to charge him. On the contrary, he appears anxious to do justice to his contemporaries and predecessors, and ingenuously acknowledges when he has failed, as well as when he has succeeded, and what he is ignorant of as well as what he knows.

The style throughout is nervous and masculine; if not elegant by no means coarse, and always free and perspicuous; and the colloquial form of vivâ voce delivery being retained, there is a character of graceful freedom in every sentence, that we seem to merge the didactic lectures in the familiar friend, speaking to us of his own every-day experience. This circumstance, however, doubtless occasions many of the recapitulations and redundancies we before spoke of: they may be necessary in imparting oral instruction, but are best avoided when the language so repeated has taken the permanent form of "print."

The Editor, Dr. Rogers, has acquitted himself in a very admirable manner, and we cordially assent to all that he claims for himself in the preface. He also deserves the negative commendation of not encumbering the text with multifarious notes: most readers prefer to judge and compare for themselves. He has contributed an Appendix, containing a Synopsis of Cullen's Nosology, extracts from Dr. Elliotson's Elements of Physiology, and copious "excerpta," both here and in the body of the work, from the author's important Treatise on Disease of the Heart. He has also furnished some ingenious physiological tables by the late Dr. Fletcher. These additions are valuable, but we could have wished to see a selection of good "formulæ" for the various remedies spoken of in the work, similar to those in the excellent publications of Drs. Gregory and Copland. We beg to suggest that such an Appendix be prepared for the next edition, which we expect will be called for at no distant date. It would also be an improvement if the pages were headed with the titles of the different subjects of which they treat. We must likewise remind the Editor that there are several typographical errors; and we have noticed a superabundance of punctuation, chiefly of commas and semicolons; we think we could point out some scores which might be advantageously "deleted." But these are but as maculæ on the face of the sun, and we only mention them that they may be looked to in another edition; some few errors will creep in notwithstanding the most vigilant care. After a diligent perusal we have formed the highest opinion of this edition of Dr. Elliotson's Principles and Practice of Medicine. It is the most modern work on the subject, and is every way calculated to represent to foreigners the present state of practical medicine among the best practitioners of our country. We think it unnecessary to recommend it, because it will recommend itself, and command success by its own intrinsic merits. We have only to add that it forms a goodly volume, containing upwards of 1100 octavo pages, printed in a bold and clear type, and is published at a very moderate price.

SELECTIONS IN PATHOLOGY AND SURGERY; OR, AN EXPOSITION OF THE NATURE AND TREATMENT OF LOCAL DISEASES; EXHIBITING NEW PATHOLOGICAL VIEWS, AND POINTING OUT AN IMPORTANT PRACTICAL IMPROVEMENT. ILLUSTRATED BY CASES. By *John Davies*, Surgeon to the General Infirmary at Hertford, and late Editor of the London Medical and Surgical Journal. London. Longman and Co. 1839.

MR. DAVIES informs the readers of his work, in an Advertisement, that:—

"The Physiological Principles upon which the Pathology of Inflammation here set forth is based, were published eleven years ago, in a series of Essays, in the *Medical Repository*, and the *London Medical and Surgical Journal*, of which the Author was then Editor. The Principles developed in those Essays are founded upon a long course of Experiments, repeated so frequently as to leave little doubt as to their correctness.

The object of the Second Part of the Work is to bring into general notice a Remedy whose superior Curative Properties, as an external application, appears to be but little known to the Profession. This Remedy is Iodine in a liquid form. Respecting the employment of Iodine as an external remedial agent, the Author lays no claim to originality; but, with the exception of a small volume, published some years ago, by Mr. Buchanan, he is not aware that the mode here recommended for its application, has been pointed out to the public. During the last ten years the Author has employed the Remedy in question very extensively, both in Infirmary and private practice, and the object of the present Work is to acquaint the Profession with the result of his experience respecting its use during that period." *Preface.*

It would occupy us too long to enter on the examination of the physiological portion of the volume. We will only say of it that it bears sufficient evidence of the ingenuity and acquirements of Mr. Davies. We shall turn at once to the practical part, which sets forth the powers and the application of iodine, that remedy which bids fair to rival in use, if not in utility, mercury itself.

Mr. Davies states that iodine may be applied with much benefit to diseases and local injuries in which it has hitherto been very limitedly, if at all, employed. The various local affections in which he has used it during the last eleven years, both in hospital and private practice, induce him to set it forth as by far the most efficient tropical application in our possession. The mode in which he has generally employed it, has been that recommended by Mr. Buchanan, namely, in the form of tincture; in which form, *certainly*, it possesses remedial properties which it does not exhibit in any other. He goes on to remark:—

"It is not the intention here to treat of iodine as an internal remedy, but we may be permitted, in passing, to observe that we have never witnessed it to produce the effects attributed to it on the testes and mammæ, namely, causing the absorption of these glands. We have administered it internally very extensively and, in many cases, for several months together, yet *not in one instance* did it reduce the size of the glands already mentioned. We may also be allowed to state that we have been much disappointed in it as an internal remedy, more especially in scrofulous affections, for which it has been cried up as almost a specific. Its curative effects in bronchocele are so well established as to render

it unnecessary to do more than mention the fact; but with the exception of that affection, its medicinal virtues, according to our experience, are rather limited, when internally administered. It is, however, proper to mention, that we have found it one of the most useful remedies in cases of long-continued dyspepsia, and in some other affections of the mucous membrane of the digestive canal." 81.

On one point, at all events, we agree with Mr. Davies—the exaggerated virtues attributed to iodine in scrofulous affections. There cannot be a greater delusion than to regard iodine as a sort of specific in scrofula—there cannot be much worse or more mischievous practice than to give it indiscriminately, or even extensively in that composite disease. But we think that Mr. Davies robs iodine of much that was justly due to it, when he almost limits its benefits to dyspepsia. To exclude it from the treatment of the cachetic symptoms that follow syphilis, or the abuse of mercury in certain constitutions, would be doing injustice to it and to the patient.

It is as an external application that Mr. Davies mainly leans on iodine.—And he leans on it too with all his weight. He assures us with confidence that it is very easy of application, mild in its effects on the nerves of the part with which it comes in contact, and capable of being modified in the degree of its strength, so as to suit it to the intensity of the disease and the natural quality of the skin of the patient.

The following are the forms in which Mr. Davies recommends and employs this medicine.

"Both at the infirmary and in private practice we are in the habit of using the iodine in two forms, but by far more frequently in that of tincture in alcohol. The tincture is made by dissolving forty grains of iodine in an ounce of rectified spirit; and its strength is afterwards reduced, when necessary, by the addition of more spirit. The other form is an iodureted solution, which is made by dissolving thirty-two grains of iodide of potassium (hydriodate of potass) in an ounce of distilled water, and by adding to the solution eight grains of iodine. With this iodureted solution a lotion is made by the addition of distilled or of common water, varying in strength according to circumstances, from one-eigth to one-fourth of the former.

The strength of the remedy must be determined by the quality of the skin, in the first place. When the skin is thin and delicate in texture, the tincture should be reduced to half its strength, otherwise the cuticle may be raised in blisters, which should always be avoided if possible. When, on the other hand, the cuticle is thick, and of coarser texture, the tincture may be applied undiluted. In the second place, the strength must be regulated by the nature and intensity of the disease. If, for instance, we have an acute inflammation of any part, and if, most particularly, it shows a disposition to slough, the remedy must be used in its full strength. In all cases of sloughing ulcers; in all cases of irritable ulcers; in all cases of lacerated, contused, or punctured wounds, the strength of the tincture should *not* be reduced—it should be applied undiluted in the first instance; but when the slough has separated, or the irritability has ceased, and when the remaining object is merely to promote the growth of granulations, then the strength ought to be reduced about one-half. In indurations of the glands; in chronic affections of the joints; in inflamed breast; in fact, in all affections whose seat is *under* the substance of the skin, the tincture should be employed in its full strength, unless the skin covering the seat of the disease be very delicate or irritable—we mean *naturally* irritable, for the remedy itself would soon deprive it of any *morbid* irritability." 83.

Such are the forms of exhibition; we turn now to the mode.

Suppose, says Mr. Davies, we are called to a case of severe inflammation of the leg, in a stout robust person: the limb is intensely red, hot, swollen, and glossy, all the way from the toes to above the knee: it is double the size of the corresponding one; and so painful as to disturb the general health—as to cause quickness of the pulse, white tongue, thirst, &c. We immediately *paint* the whole limb with the tincture of its full strength, extending its application from the toes to several inches above the upper margin of the inflammation: the remedy is applied with a camel's hair brush. This is all the local application requisite for the present. The limb is directed to be kept in a horizontal posture, and either to be very lightly covered over with a sheet—which must not come in contact with the skin—or else to be left exposed, according to the temperature of the apartment. In less than twenty-four hours—in less than twelve hours—the swelling will be found to have diminished. At the end of twenty-four hours the skin will be seen much corrugated, showing its contents to have become less in bulk, and the circumference of the limb will measure some inches less than the day before. The diminution will be found to have taken place more particularly towards the upper part of the swelling. We now repeat the application of the tincture, of the same strength. In another twenty-four hours the reduction of the swelling will have gone on rapidly, and only a remnant of the disease will be found to exist. The strength of the tincture must be now reduced to one-half, and its application continued daily, or less often, according to circumstances, until the limb is well. After the second or third applications of the tincture, we sometimes brush the limb over with spirit of wine alone, so as merely to dissolve the iodine which remains on the surface of the skin.

Such, Mr. Davies assures us, are the usual effects of the application in cases of pure phlegmonous inflammation. He will not allow of any further variations than the secondary ones of *degree* of *curative* influence. In every case he promises benefit. Nay, he has never seen more than trivial inconvenience from it. Now and then it has caused a slight watery eruption on the surface of the skin, and a degree of itching in the part, when employed too strong, or when persevered in too long. These eruptions have invariably given way in a few days to a simple evaporating lotion of spirit and water.

The direct effects upon the skin are alluded to. Our readers should be informed, as Mr. Davies will inform them, that the application of the tincture is almost always followed by a desquamation of the cuticle, leaving the part covered by a new, clean, healthy layer of cuticle. This takes place when it has been applied to a healthy part. On the healthy skin it generally causes a sensation of heat, and some degree of smarting after a few minutes; but frequently no smarting or pain is felt—nothing but a slight and agreeable warmth. When applied to a part undergoing the process of inflammation, the pain, which forms one of the essential characters of the disease, soon becomes deadened, and is succeeded by a sensation of warmth, which, in a few hours, ceases also, and leaves the patient free from any sense of pain or heat in the seat of disorder. If applied to the surface of a sloughing ulcer, or to a part on the verge of gangrene, or to a foul irritable ulcer, it is seldom felt by the patient. On a healthy ulcer it produces, generally, a very sharp, smarting pain for a minute or two, but the pain almost imme-

diately ceases and leaves the part in a comfortable state. The same sensation is produced by it when applied to the surface of a recent lacerated wound, or to any healthy raw surface.

Mr. Davies cautions us that, if any itching, or a slight blush of the skin, should follow the repeated applications of the remedy, especially on the lower extremities, it should be discontinued, otherwise the cuticle will rise into small watery pimples, and will teaze the patient for a few days; but this effect is produced by it on the *healthy* skin only—when applied, for instance, to the skin covering a diseased joint, or when any induration or swelling is situated under the skin—for Mr. D. has never found it to blister the cuticle and to cause exsudation of lymph from the surface of an *inflamed* skin.

"Neither the iodurettted solution, nor the tincture of iodine as directed to be prepared by the London Pharmacopœia, is applicable to cases of inflamed or of ulcerated skin, for they both contain hydriodate of potass. In either of these forms the Iodine is far preferable for *internal* use, to being dissolved alone in alcohol: for in the latter form it nearly all precipitates when water is added to it, whereas the hydriodate in combination with it renders it perfectly soluble in water or watery infusions. As an external application, however, the hydriodate renders it acrid, and gives it a tendency to inflame the skin and to cause a considerable degree of smarting when brought into contact with any ulcer or ulcerated surfaces. The iodurettted hydriodate lotion is only applicable to affections whose seat is under the skin, such as diseases of the joints, scrofulous tumours, glandular indurations, &c,; but even in most of such cases, the tincture is far preferable, when the patient is so situated as to enable the practitioner himself to apply it as often as necessary. We state this proviso, because we never trust the employment of the tincture to the patient." 85.

The iodurettted hydriodate solution, he goes on to state, like the tincture, produces a desquamation of the cuticle if used strong, but this only becomes observable some time after the lotion has been left off, and the skin has become dry. Mr. D., however, seldom uses this preparation, except in cases where it is not convenient to see the patients so often as required for the application of the tincture, because the latter, if indiscreetly employed, is likely to cause an unpleasant sensation in the skin of the part to which it has been applied. The solution forms a very ready mode for an iodine gargle, in cases of ulcerated sore throat. Diluted with from seven to ten parts of water, with the addition of honey, it forms one of the best kinds of applications of that description. But even in affections of the mouth and throat the tincture is preferable—it is less nauseous to the patient, and quicker and more efficacious in its curative effects.

Mr. Davies proceeds to the consideration of the diseases, for which iodine is beneficial. Erysipelas, Phlegmon, Extensive Sloughing of the Cellular Membrane, Acute Inflammation of the Joints, Inflammation of the Breast, Gout, Enlargement of the Joints, Inflammation of the Absorbents, Carbuncle, Lupus, or Noli me Tangere. Malignant Ulcers of the Tongue and Tonsils, Scrofulous Swelling of the Glands, Whitlow, Chilblains, Lacerated, Contused, and Punctured Wounds, Burns and Scalds, Ulcers, constitute the ample catalogue. We shall pause at some of these complaints, for the purpose of selecting an observation or two upon their management.

Erysipelas.—The topical remedies, writes Mr. Davies, commonly used in erysipelas are local bleeding, by leeches; simple evaporating lotions, or

lotions medicated with lead, zinc, acetate of ammonia, opium, camphor, or any other ingredients, according to the views or fancies of the practitioner; fomentations, generally of chamomile and poppy heads; poultices, simple or medicated; incisions through the seat of inflammation, as recommended by Mr. Lawrence: scarifications, as recommended by Dr. Dobson: the application of lunar caustic, as recommended by Mr. Higginbotham. Of the *modus operandi* of all these plans, we have already spoken, and the degree of reliance to be placed on each or all of them in erysipelas, is so well known as to render it unnecessary to treat of them specially here. But it will be found, upon trial, that the tincture of Iodine is a topical remedy far more efficacious than any of them, or of all of them put together.

We should remark that Mr. Davies does not speak of erysipelas in a restricted sense. He lauds the iodine not only in the cutaneous, but in the phlegmonoid erysipelas too, and incisions would seem to be regarded by him as quite secondary to it in utility. Of course we cannot pronounce with the authority of experience on this point, not having employed the iodine in such cases. But we confess, and Mr. Davies will pardon the scepticism, that we doubt if iodine or any application can effect what incisions do. In cutaneous erysipelas, the complaint, for the most part, runs a pretty regular course, and, perhaps, external remedies receive more credit than they merit. In the erysipelas phlegmonodes, the skin dies from the distention of the cellular membrane, and our imagination scarcely stretches to the powers of iodine in remedying this.

Phlegmon.—Mr. Davies observes that, in what manner the influence of the tincture reaches the vessels, in deep-seated inflammation of the cellular membranes, he does not profess to be able to explain, but that the remedy *does* exert an influence upon them is perfectly certain. In cases where pain and throbbing only exist, and where the inflammation has not yet made its appearance on the skin, it will generally be found that a single application of the tincture, in its full strength, and thickly painted over the seat where the pain is felt, will at once check or cut short the disease. A sensation of warmth, and probably some degree of smarting, will be felt in a few minutes in the part to which the remedy has been applied: this may continue for an hour or two; and when it ceases, the original pain also will generally be found to have ceased. However, it is safer to repeat the application, though no more pain or throbbing be felt; for no harm can arise from so doing.

Inflammation of the Joints.—Mr. Davies affirms that the tincture of iodine is of more service here, than any of the remedies in common use, that is, than cupping or leeching, evaporating lotions, fomentations or poultices. But if the tincture be used too strong at first, or applied too frequently, it may give rise to inflammation of the integuments, and cause, or add to the, puffiness of the soft parts external to the joint. The texture of the patient's skin must serve to guide the practitioner, in a great measure, respecting the strength of the tincture and the frequency of its application. It should be at first diluted to about half its strength, or more, if the skin be of a very delicate texture; and, if required, its strength may be gradually increased according to its effects.

"The tincture, diluted, may be applied at once all over the inflamed joint, with perfect confidence that not only no *mischief*, but that *good*, will be the result. But when the disease has been pretty far advanced, and where the swelling has been considerable, we have generally preferred leeching the joint first, and then, a few hours after the bleeding has ceased, to apply the tincture. Whether by getting into the leech-bites the remedy exerts a greater influence on the internal vessels of the joint, we do not profess to know, but the fact is that the application of leeches, in this species of inflammation, previous to the employment of the tincture, tends greatly to assist the good effects of the latter. The remedy will generally require to be applied every day, for two or three times; then every other, or every third day, according to circumstances; the practitioner exercising his discretion according to the condition of the part, and the effect of each application. If, in the intermediate time of the applications, the part should acquire an increase of temperature—as it sometimes does very suddenly, without any evident cause—it will be useful to lay over it a layer of rag soaked in spirit of wine, or in a simple spirit and water lotion. This application will not interfere with the repetition of the iodine. But no lead or zinc lotion, or one medicated in any way, should be employed." 106.

Turning aside from *inflammation* of the *mamma*, in which iodine either prevents suppuration altogether, or renders its amount trivial, we are delighted to perceive that its terrors have been stripped from—

Gout.—The curative effects, protests Mr. D., of the tincture of iodine in the pain and inflammation of gout can be appreciated by those only who have witnessed them, or those who have received the benefit of the remedy. He has generally found one or two applications remove the pain almost entirely. He usually dilutes the tincture to about two-thirds its full strength; and if the part affected be the foot, he paints it and the toes well over, all the way from the ankle; or from higher up the leg, if the ankle itself suffers from the disease. The application is repeated next day if any pain, redness, or swelling remains. In fact the disease is treated like common phlegmonous inflammation. When the malady has fixed itself in the fingers and hand, the treatment is the same: the whole hand, fingers, and wrist, are brushed over, and the application is repeated as long as any trace of the disease remains.

Mr. Davies adds, that in very many cases of anomalous pains of the joints, supposed to be gouty or rheumatic, unattended by inflammation, the effect of the tincture of iodine has been very noted. In such cases it ought generally to be used in full strength, unless the texture of the skin be delicate. It first causes a sensation of warmth, amounting in most instances to smarting; and it commonly follows that, when that sensation has ceased, the original pain is no longer felt; or, if felt, it is in a much lower degree than before the application of the tincture.

None but those who have suffered from gout or gouty pains, or those who have had to treat them, can feel due gratitude for the benefits which Mr. Davies promises. He will pity, we are sure, our doubts, because they spring from inexperience of the remedy. We hope to be convinced.

If we hesitate to insert what Mr. Davies says on the management of lupus, it is because the two cases of cure that he relates appear to us *not* to have been instances of the disease. The single case of undoubted lupus, was, unhappily, not benefitted.

Malignant Ulcers of the Tongue and Tonsils.—If we quote the following passage, it is rather for the purpose of exhibiting our author's confidence, than our own.

"Ulcers of a very troublesome kind often form within the cavity of the mouth. These are occasionally tainted with syphilis, especially when they attack the tonsils, and velum of the palate. Frequently, however, even these parts become the seats of destructive ulcerations, in the production of which syphilis has had no share. We were greatly puzzled respecting the treatment of affections of these seats before we began to employ the iodine; but since then the treatment has been easy enough, and almost uniform in its success—indeed, we may say quite uniform, as far as our experience goes." 115.

Whitlow, even, bows to the iodine. Mr. Davies instructs us that, as soon as the throbbing and pain of whitlow are felt to be coming on, the whole finger or thumb (whichever it may be), ought immediately to be painted over with the tincture of iodine, of its full strength. In about twelve hours, the application should be repeated, unless the morbid sensation has ceased, which is often the case, even after the first application. In every case, however, it will be prudent to repeat the remedy two or three times, at intervals of twenty-four hours; except where it is certain that suppuration has actually commenced. He does not remember an instance in which the tincture has failed to subdue the disease. Whenever it is suspected that matter exists, or even when that is doubtful, if the inflammation does not give way in a few hours, a *free* incision should be made into the part: the tincture should then be applied over the finger, as well as over the hand, if at all swelled; and it should be made to insinuate itself freely into the incision After an hour or two have been allowed to elapse, a small poultice should be applied to the end of the finger—confining it to as small an extent beyond the incision as possible, its object being merely to keep the wound from healing. The same treatment should be repeated daily as long as any vestige of the disease remains.

We *skip* Chilblains, Wounds, Burns and Scalds, and rest for the last time on—

Ulcers.—Speaking of specific sores, Mr. Davies observes:—

"We have also used it in several cases of chancre, and have found the ulcer to heal much quicker than under the usual mercurial application, or the nitrate of silver. The tincture has been likewise used in ulcers of carcinomatous character; and although we should not be justified in speaking of it in positive terms as being capable of curing cancer—certainly not cancer of the mamma—yet so many cases distinguished by scirrhous indurations, accompanied by malignant ulcerations, especially of the lips, tongue, and tonsils, have given way under its use, that, certainly, no topical remedy at present in the possession of surgery seems to equal it in efficacy in affections of that description." 127.

In all cases of sloughing, or irritable, or spreading ulcers of the non-specific sort, the tincture, of full strength, is freely applied by Mr. Davies, over their surface, and to the skin, to the extent of two or three inches round them. Having been allowed to remain for some time, the ulcer is covered over with simple ointment on lint, or with a poultice, the former being generally preferred. The same application is repeated daily until the ulcer becomes clean and healthy. The tincture is then weakened, and the granu-

lations are touched with it every two or three days. Under this plan the cavity of the ulcer fills up rapidly with healthy granulations. Where the ulcer is in a situation to have pressure applied, either a bandage or strapping with sticking-plaster is had recourse to as soon as the surface has become clean and has put on a healthy appearance.

We believe we have abstracted the main practical facts or directions from this volume. It would not be an act of honesty towards the public did we profess to subscribe to all that we have quoted. But neither would it be an act of honesty towards Mr. Davies, to profess that we have given his plan an actual trial. We are aware that in medicine there is no standard to which all disputable points of practice are referrible. We are none of those who bawl incessantly for "principles," meaning by principles their own opinions. Nor are we bigots to the wisdom of our ancestors, a convenient mode of wrapping up laziness in prejudice, and prejudice in a pseudo-respect for truth. But the danger of the present times is the opposite extreme. The most stable opinions, the best established generalizations, are set aside like an old almanac, and each man ventures without a qualm his argosy of theory or of empiricism on the boundless sea of novelty.

To return to the occasion of these remarks—the work of Mr. Davies—we do confess our scepticism of much of the power attributed by him to iodine. But we dare say, that its use as an external application is, in common hands, too restricted; and, at all events, Mr. Davies's statements may reasonably lead to experiments on the part of other surgeons. *They* must recollect that preconceived opinions in regard to the operations of remedies, however well founded they may *seem*, occasionally prove erroneous—that all we know, and all we ever shall know, of the effects of medicines, flows from empirical observation only—and, finally, that no patient experimenter, however much he may mistake in some particulars, fails to correct some misconceptions, and to add some truths to the existing stock.

TRANSACTIONS OF THE MEDICAL AND PHYSICAL SOCIETY OF BOMBAY. Octavo, pp. 370. Bombay, 1838. J. M. Richardson, Cornhill.

WE have, on a previous occasion, noticed very briefly this volume of Transactions. But the Surgeons of a Presidency like Bombay have some claims on the notice of their European brethren, and the latter must be curious to learn the current of thought, or feeling, or of occupation, that flows in the channel of professional life in India.

We quote from the Preface to the volume before us, a rather interesting passage. It exhibits in a new light the hackneyed and seemingly familiar subject of change of climate.

"Among other branches of research, which in an especial manner, require the attention of the medical observer between the tropics—may be instanced, the application of the facts ascertained by the experiments of MILNE EDWARDS *on*

the influence of physical agents on life, to the explanations of the phenomena of disease.

The facts to which allusion is principally intended, are,

1. The greater capacity possessed by warm-blooded animals, of generating heat, in a cold, than in a warm climate, or season.

2. This change from great to small capacity of generating animal heat, is not sudden, but gradual, consequently, circumstances may frequently arise, in which the capacity will not be in relation to the necessity.

3. The capacity of generating animal heat, is in relation to the quantity of oxygen consumed, during respiration.

4. The amount of oxygen consumed, is also influenced by conditions of the animal in regard to diet, wakefulness, sleep, &c.

5. This relation of certain conditions of the animal, to the consumption of oxygen—establishes a relation between those same conditions, and the capacity of generating animal heat.

To enter into the detail which these facts naturally suggest, would be misplaced here: it is sufficient to call attention to the importance of their consideration, when directing change of climate: for it may with propriety be said, that this important instrument in the prevention, and cure of disease, though daily recommended, and had recourse to, is one, regarding which, we have not definite or applicable information. Nor can it be advanced, that this state of ignorance on our part, is a necessary result of the abtruseness of the subject; till we shall have studied it, in strict relation to the present condition of meteorological science, and to that additional knowledge of the laws of life, which the experiments of MILNE EDWARDS, have placed at our command.

It may be urged, that medical writers in colder latitudes, have written much, and well, on the subject of change of climate. But without entering into any consideration of the merits of these works, it may at once be presumed, that if, they are applicable to the conditions of *colder latitudes*, they cannot be so in any extent, to countries between the *tropics*.

Change from a cold climate, has always reference to recourse to a warmer one, and has an antiphlogistic tendency: whereas change from a tropical climate, has always reference to recourse to a colder one, and has a tonic tendency: *it is the difference between antiphlogistic regimen and the exhibition of tonics.*

In regard to the 3d, 4th, and 5th facts, it may be remarked, that if we regard the degree of oxygenation of the blood, as not confined in its influence, to the function of animal heat—but as extending to all functions, to the actions of which, the circulation of the blood is essential: then, to a very casual reflection, the wide range of their application will at once, be apparent." v.

The Secretary, Mr. Morehead, goes on to remark:—

"*The manner of rearing the children of Europeans in India, and the question of its propriety*, are also intimately associated with these physiological facts, and may be thus expressed.

1. By the modification of the action of what functions, are the characteristics of different periods of life, and different varieties of the human race, brought about?

2. Is it rational to suppose, that a knowledge of the laws of these modifications, may lead to a knowledge of the means by which, their operations may be counteracted, when unfavourable, or invited when the reverse?

These propositions tend to a course of inquiry, as yet unentered upon, but of great importance, and falling within the province of the medical practitioner in India, in an especial manner, to attempt." vi.

Mr. Morehead indulges in some speculative observations, which we must also give in his own words.

"To attempt," he says, "to acquire a knowledge of the laws of disease, by in the first instance, studying the laws of external agencies, and in the second, their manner of operation on the animal system—would be, to revert to the direction of research, followed by the FATHERS of our art, and neglected since the days of SYDENHAM and HUXHAM. It may be further objected, that this order of procedure, would be to desert that mode of inquiry of the modern schools—which seems to be, in a fair way of leading, to a juster knowledge of the laws of disease—which has reference to a knowledge of the ultimate phenomena of disease (*morbid anatomy*) acquired in the hope of ascending, by gradations of generalization, to a knowledge of their initiatory laws.

That both are legitimate modes of inquiry, cannot be questioned. The mistake, perhaps, has been, in advocating the one, to the exclusion of the other, instead of allowing the circumstances of the inquirer, to dictate the preference. Where there is much variety in the phenomena of external agencies—of climate, season, modes of life, &c., as in India, then, to study the laws of these phenomena, in relation to their effects, ('the production of disease',) ought to occupy much attention. But when these external agencies are less operative, better understood, and guarded against, then the mode of inquiry, from ultimate *individual* phenomena, to the higher stages of generalization, is that, which more naturally suggests itself.

If there be reason in nature for this distinction, it admits a preponderance to the importance of the study of morbid anatomy, in temperate climates; but does not make the same admission, in regard to the study of the phenomena of disease, between the tropics. The acknowledgment of such a principle, is of this further consequence, that it at once establishes the conviction, that, *to be slavish imitators of the doctrines, and systems of the European schools, is to shew ,that we do not estimate our position here, at its true value to science.*

To revert again to these two manners of inquiry.

In arguing, the probability of failure on our part, from the want of success of SYDENHAM, and HUXHAM, it ought to be recollected—that HUXHAM did not know the chemical constitution of the atmospheric air, and that since his time, important additions have been made, to our knowledge of the laws of life. To throw the lights derivable from the science of meteorology, and the experiments of MILNE EDWARDS, on this mode of inquiry, would be, entirely to alter its complexion Whilst, without wishing to take from the value, of the study of *morbid anatomy*, it may be with reason suspected, that its importance is not always accurately measured—that it is too often considered, as the *end*, instead of the *means*.

It is perhaps occasionally forgotten, that the facts of *morbid anatomy*, are but a part of a series of phenomena—the knowledge of the whole of which, it is hoped, may in time lead, to a knowledge of the general laws of disease. Should a knowledge of these laws, ever teach a more efficient system of prevention and cure of disease—then it will be unnecessary, for the *future* medical philosopher to go over the stages of observation by which, this knowledge has been reached; he may not in fact, enjoy the opportunity, because, if the object of studying the appearances of morbid anatomy, be, to lead to a better system of cure—then it follows, that if this object ever be gained, in any considerable degree, *the effect will be, to prevent the recurrence of those very appearances, which now constitute a department of study, under the name of morbid anatomy.*" xi.

It cannot, we think, be doubted, that morbid anatomy does not constitute the whole of pathology. The study of morbid anatomy is now acknowledged to be only the study of effects, the lesion being the result of prior morbid action. No one in his senses would counsel attention to morbid anatomy exclusively, although it must be owned that some persons who profess not to have lost their senses, virtually pursue this course. A sound acquaintance

with morbid anatomy informs us of the tendencies of morbid action—its causes, and its treatment constitute separate subjects of investigation. It may be that our Indian brethren enjoy better opportunities than ourselves, for studying the causes of disease, or those external agencies which induce disease; yet we cannot perceive what their advantages are. We should say that the great field for cultivation at present, is the chemistry of the fluids in morbid conditions of the body.

The majority of the papers in these Transactions are not adapted for our pages. They refer to matters which peculiarly interest residents in India. But we may allude, as a subject of curiosity, to some Notes by Dr. Percival Lord, on the

STATE OF MEDICAL AND SURGICAL SCIENCE IN THE COUNTRIES BORDERING ON THE INDUS.

It may be reasonably questioned whether we derive instruction from contemplating the state of science among barbarians. But some degree of amusement may be obtained in this manner, and perhaps the contrast between the arts of civilized and of uncivilized nations may conduce to our own information.

A great Indian Lithotomist.—Dr. Lord was so fortunate as to meet at Dera Ismael Khan, a man much renowned for his skill in lithotomy. He had no sound; his cutting instrument was a spear-shaped lancet, exceedingly rude in its construction. He ascertained the existence of the stone by introducing his finger into the rectum, and if necessary, pushing down the bladder from above.

He had operated, says Dr. Lord, on about two hundred cases, of which seven or eight were women: he could not say how many children. Of these about twenty, all adults, had died. Death never followed immediately after the operation from hæmorrhage, but, when it did occur, was always preceded by intumescence of the belly, sickness of stomach, &c. &c.; in other words, the patient died of the subsequent inflammation, and this he knew no means of checking.

Before proceeding to operate, he always insisted on the patient giving him a written certificate acquitting him of all responsibility, in case death should follow. The man was perfectly ignorant of anatomy, and proceeded in this simple manner, pretty much as our ancestors did before the days of Frere Jaques.

The patient was placed on the ground on his back, with his legs drawn up, and the knees held asunder by assistants. The operator introduced two fingers into the rectum, (one if the patient were a child,) and endeavoured to hook with them the stone, aiding himself by pressing down from above, with the other hand. When he had once hooked the stone, he stated, he was always certain of getting it out. For this purpose he pressed it down on the perinæum, making it project on one side or other, as its situation rendered convenient. He avoided the raphé, as, he said, cutting there destroyed the generative powers. Having made the stone protrude, he pushed in his spear-shaped lancet until the point met the stone, and then with the

shoulder enlarged his opening, first upwards and then downwards, until the point which he moved along the stone was found to have reached its edge in both directions. In doing this, he employed considerable force.

The knife is now withdrawn, and two fingers introduced, with which the incision is stretched, and torn until it will admit his second instrument, which is neither more nor less than a large goat's, or antelope's horn. The point of this is entered above the stone, and the instrument caused to revolve, using the pubis as a fulcrum, and then, with the practitioner's whole strength, the horn, thus converted into a lever, is suddenly pushed back towards the patient's body, while the point revolving, of course, in the opposite direction, jerks out the stone through the aperture.

Such is the proceeding in all cases: the only difference made with women is, that the incision is commenced at rather a greater distance from the raphé; the finger in both cases being introduced into the rectum, never into the vagina. The only subsequent treatment is to rub the parts over with oil, or, if the patient be of the better class, an ointment composed of common salt, turmeric, and the impure carbonate of soda, got from the *làna* or salt plant, is smeared on.

"The number of deaths, as stated, is surprisingly small, but I am inclined to think they have been very much under-rated. The man is very ignorant, keeps no register of any kind, and merely gives his numbers by guess, and in a vague manner. Still he is nearly consistent in his proportions, for on asking him, at a separate interview, how many operations his brother (who is also a surgeon) had performed and how many patients lost, he replied, 40 operations and 5 deaths, adding, there might have been one or two more. His father, he said, had operated in cases without number, and many of his patients had come from the remotest parts of Khorasàn. He was not aware whether he ever cut into the urethra or rectum, but some melancholy cases came before me in which, either from the operation or the subsequent formation of abscesses, both these opened into a common cavity, and dreadful ulceration and sloughing had supervened.

Stones, he said, were occasionally impacted in the urethra, and these he cut on, and removed without hesitation. I must add, in justice to my brother practitioner, that his scale of charges was extremely moderate: a poor man, he cut for stone for two rupees; a rich man, he said, usually presented him with a horse or a camel. But stone in the bladder is an object, as well of medical, as of surgical practice, and various mixtures are prescribed for the purpose of expelling the stone, and rendering the operation unnecessary. Most of these are rather likely to act as diuretics than solvents, still the alkali which they generally contain, may give them some of this latter quality also." 281.

An Indian Operation for Cataract.—But, continues Dr. Lord, he was also skilful in removing cataract, though his success, if he ever did succeed, was inexplicable on any principles known to us. Of the eye, and its contents, he had not the remotest idea. Cataract he called and considered *purdah* (a screen); to remove that screen, he announced as the object of his operation, but conscious that he had never really succeeded in withdrawing this screen, he usually, before the operation, furnished himself with a small shred of onion peel, which he managed to wrap round his instrument, so that on withdrawing it from the eye, and plunging it into a vessel of water, the shred might appear floating on the surface, thus affording the most indubitable evidence of his skill and success.

His implements were certainly wretched. He had an old lancet with

which he made his incision, and, to prevent it entering too far, had it wrapped round with cotton thread, to within about two lines of the top, so as to leave little more than was sufficient, for cutting through the thickness of the sclerotica. His incision was always made from below, directing the patient to look up, and entering the lancet over the lower eyelid into the white of the eye, when he had it well exposed.

He did not seem particular as to the exact spot; any where, between the cornea and the reflection of the conjunctiva, was all the same to him. Having made his incision, he withdrew the lancet, and proceeded to introduce a long copper probe, on the top of which, was a sort of irregular, triangular pyramid blunted at the point, to prevent it, as he said, doing mischief.

Now commenced the serious business of the operation, for taking the handle of the probe in his fingers, he set to, twisting it round and round until, by some chance, one of the corners hitched against the lens, and drew it out of the axis of vision. In this process great part of the vitreous humour was discharged, dreadful laceration occured, and, not unfrequently, blood flowed freely.

The minute the patient exclaimed, he saw, the instrument was withdrawn, (the lens being never extracted, but merely reclined, or depressed,) a piece of cotton dipped in a mixture of opium, oil and turmeric was dabbed on the eye, and the operation declared to be finished. Occasionally the additional precaution was taken, of making three issues with a hot iron, one behind, and two over the eyes; but no further treatment was known or thought of. It will readily be believed that, after such operations, the occurrence of inflammation of the globe is almost inevitable. This they have no means of checking, and Dr. Lord believes that the operation ends far more frequently in the total destruction of the globe, than in the restoration of even imperfect vision.

Studies of an Indian Physician.—"Of their medical art it scarce becomes me to speak after the transient observation of a few months, as a venerable practitioner at Pind Mulik Oulea, in reply to my enquiries on the subject, told me that he had spent thirteen years learning his profession, before he ever ventured on a single prescription. I was however a little re-assured when I found he had employed his whole time in committing to memory four book; viz, first, the Jumguntuk, which gives a history of the structure of the body; second, the Kok-Shaster, which treats of the diseases of females, and the other matters connected with the sex; third, the Bèd-Munùrut, which gives prescriptions; and last, the Nidàn, which teaches the different forms of disease.

As a specimen of what he had learned, he told me that there were 18 kinds of gonorrhœa, and 84 of belly-aches. I was astonished at this abundance, but was informed that the variety was not in the nature, but the situation of the pain, the abdomen being divided into so many distinct regions.

Further, to impress me with an idea of his anatomical skill, he informed me that the arm contained three principal veins, namely, Budsalìk, which went to the eyes, and was to be opened in all diseases of the head; Sir-ì-rù, which, having its source in the liver and heart, was to be opened in case of jaundice, palpitation, &c.; and Haftandàm, which went, he did not exactly know where, but which was to be opened for rheumatism only. A Mùltan practitioner had recounted to me seven veins, but, not having taken them down at the time, I am unable to report on the remaining four." 286

A grand Aphrodisiac —"Mixtures of this kind are considered the triumphs of the art, and for these, practitioners receive the highest rewards; it is therefore, perhaps, sufficiently natural, that they should have engaged so much of their attention. In proportion to the high demand for them, is the difficulty of obtaining an explanation of their contents, nor was it without considerable persuasion, and the gift of, I know not, how many empty bottles, (here a highly-prized present,) that I succeeded in getting the following, an undoubted original, composed expressly for the Nuwab, who ruled the Deraját previous to the Sikh invasion, and the birth of whose child was attributed, both by himself and his courtiers, to its potent influence.

Take of Shingruf, (cinnabar,) 1½ tola.

Tie it up in a cloth, and put it in a vessel containing a maund and a half of milk. Boil slowly, until all the milk is boiled away. (By this proceeding the Shingruf is supposed to attract to, and concentrate in itself the whole nutritive qualities of the milk.) Then place it in ¾ maund of onion water, and repeat the same process. (By this it is supposed to acquire the heating qualities of the onion.) Then take purified opium 4½ tolas; dissolve in water, and boil Shingruf a third time in this water. (By this it becomes intensely stimulant.)

But now comes the grand invention.

Take five chickens, bray them to a soft paste in an iron mortar, picking out all the bones; add as much biláwa (marking-nut) as shall equal the weight of the flesh, mix immediately, and divide all this into ten parts.

In one of these parts place the Shingruf, wrapping it up as in a ball; cover it over with flour and fry it in ghee, until the ball becomes thoroughly browned, Then take out the Shingruf, transfer it to another ball, and fry, and so on, till the Shingruf has been fried in all ten parts successively. The balls may now be thrown away, and the Shingruf is fit for use. For this purpose reduce it to powder. The dose is the weight of one grain of rice, mixed with butter, and washed down with one seer of milk.

This the practitioner told me, he had prepared for the Nuwab, as the most powerful of all aphrodisiacs, and added that he had kept a little dose for himself, the efficacy of which perfectly astonished him." 291.

Arsenic given for Ague.—"The preparations of arsenic are generally used only as external applications, but I was astonished to find that the *Zurd Sunkiah*, yellow sulphuret of arsenic, was sometimes employed in small doses (they said *half rutty*) for obstinate cases of intermittent fever. I certainly was not prepared to find Dr. Fowler's specific, brought into practical operation in the Derajàt." 293.

II. THE MANNER OF BREEDING LEECHES PRACTISED IN THE DECCAN.

Mr. Gibson communicates this in a letter addressed to the Secretary of the Society. In consequence of information which he had received, Mr. Gibson proceeded to Sówla, about eight miles from Seroor.

"I am happy to say," he writes, "that I found the particulars mentioned in your letter, generally verified. The leeches had been taken from their cocoons this morning, and therefore we could not see them, during the actual process of transition, but we saw the parent leeches; and I have the pleasure to inclose, a parcel of the cocoons from which the young were taken, and to add, that we saw the young brood in full activity and life, each leech being in length three quarters of an inch.

The people were very reluctant to show us the process of production in actual operation, but at length, on promising a reward, and by other persuasive means,

we succeeded in inducing them to do so. We were taken into an inner apartment, and a large earthen vessel buried in the earth, and filled with brownish soil, apparently without any admixture, and most carefully covered over, was shown to us. On raising the covering, we perceived, that the leeches had all made their way to the lower part of the vessel, leaving the upper parts of the earth furrowed, and perforated with their tracks.

The people told us, that the leech, on reaching maturity, is fed on a buffalo, or, if opportunity offers, on a human subject; it is then put into the earthen vessel to breed, but nothing is known of any distinction of sexes.

In this vessel it remained, in hot weather, from one to one and a half months, and in the cold weather from one and a half to two months. The vessel is then opened, the leeches are taken out, and to each is found attached the membranous reticulated egg, herewith sent, and this egg contains from four to six leeches. The young, on being taken out, are put into an open earthen vessel filled with brownish earth, and after two months, are said to be fit for use; if not then used on the human subject, they are fed on buffaloes, and afterwards placed to breed.

The people say, that the animal generally lives four, sometimes five, and rarely six months. They describe this process of production, as being carried on at Sowla, at Bela, at Chap Maroli, at Sungunmair, but, to their knowledge, at no other places; and that it is altogether in the hands of a few Musulman Bungias, who are probably relations. It seems not to be general throughout the country.

I need not advert to the useful purposes to which this art may be applied, in breeding leeches in those countries where they are scarce, on shipboard, or in England, where they are frequently sold at most exorbitant prices." 314.

III. FATAL RUPTURE OF THE SPLEEN FROM SLIGHT VIOLENCE.

Four cases of death from ruptured spleen are reported by Mr. Heddle amongst some other instances of violent death. We shall quote one, sufficient for our purpose, as it shews the slight degree of violence which in certain conditions of the spleen, as of the liver, may occasion laceration of the organ.

Case.—The subject of this was a Portuguese cook, who was attached to the 2nd Battalion of Artillery. On the morning in which he died, deceased, who was a middle-aged man, was observed fighting with a little boy not more than 12 or 14 years of age, and who in stature scarcely reached to the deceased's waist. Shortly after, the fight terminated by the little boy making his escape, and running into the bazar, the deceased became very weak and faint, and complained of uneasiness of the left side: these symptoms increased, and in a few minutes he expired.

On examining the body externally, no mark of injury could be detected. The abdomen was distended, and on making an incision through the parietes, a large accumulation of fluid blood was observed, filling the cavity of the peritoneum.

The abdominal viscera, when examined, proved to be in general healthy; the spleen alone being in a diseased state, much enlarged, and so tender that the slighest effort sufficed to push the end of the finger into its substance. This organ presented a linear laceration across the surface, which extended to the depth of half an inch. From the vessels ruptured by this lesion, had proceeded the hæmorrhage which proved fatal.

It was stated, that the deceased had previously been subject to fever, and had only recently returned from Socotra, whither he had accompanied a detachment of the troops, that suffered so severely from sickness on that island.

It was not clear whether the exertions of the deceased himself, or any blow inflicted by the fist (for the little boy had no stick, or weapon of any kind in his hand) of his adversary, caused the rupture.

We trust that the Bombay Society will persevere with the publication of their Transactions, and that each succeeding volume will bear more flattering evidence of their zeal, in the cause of the promotion of medical science.

MEDICAL NOTES AND REFLECTIONS. By *Henry Holland*, M. D. F. R. S. &c. Fellow of the Royal College of Physicians, and Physician Extraordinary to the Queen. Octavo, pp. 628. London: Longman and Co. 1839.

OF the thirty-five chapters which compose this work, we have noticed eleven more or less circumstantially. Works of this kind are rare now-a-days. They have been superseded by researches of a more anatomical character, by observations of a statistical nature, and by inquiries which have aimed at giving exactness to the science of medicine.

It would be idle to dwell on the benefits which have accrued from this modern plan of proceeding. They have stripped physic of much of the empiricism and of more of the dogmatism of former days. The revolutions which then disgraced it cannot again convulse it, for its basis is found in the positive truths of pathology. Those truths may be extended, curtailed, or modified with the progress of discovery, but the alterations will be limited by reasonable bounds, and, unlike the old changes from sect to sect, and from one absurd opinion to its contrary, they will not throw an air of ridicule upon the art.

But, valuable as this spirit of investigation has proved, and philosophical as it is, it must be conjoined with a rational empiricism. The properties of drugs and their effects upon disease are only to be determined by experiment and observation. Such experiments and such observations are as requisite, to render medicine practical, as morbid anatomy is to make it exact. Each is indispensable, and it is but rarely that the same individual is equally fitted to engage in each.

We need hardly say that Dr. Holland's book offers us the results of his personal experience. His opportunities have been considerable, and his mind has been cultivated with sufficient assiduity and success, to enable him to observe with acuteness, and to report his observations with accuracy and with clearness. Such books are, perhaps, less numerous than they should be. Men of large experience alone can produce them, and men of large experience have seldom leisure or inclination for the purpose.

It signifies so little what chapter we take first, what last, of Dr. Holland's book, that convenience or caprice will regulate our selection. We shall touch most lightly or not at all upon those which have no particular bearing upon practice.

ON THE INFLUENCE OF WEATHER IN RELATION TO DISEASE.

Such is the title of the twenty-eighth chapter. Dr. Holland very justly remarks, that—amidst all the opinions and phrases current on this subject, it is singular how little real knowledge has been gained, or applied to practice. The difficulties of the inquiry are great, both from the complexity of the agents concerned, and from that of the organs and functions acted upon. Yet with the certainty we have of the extent, variety, and unceasing nature of this influence, it is manifestly a field of research, where patient observations and averages cannot fail of affording the most valuable results.

Dr. Holland goes on to observe that the subject, taken in its whole extent, admits of being distributed into several separate objects of inquiry.

First, there is the history of the diseases of particular climates, on which a good deal has been done—then we must consider the climate of particular places, and their relative fitness as residences for invalids—then, the relation of the several states and changes of atmosphere to the various functions of the body; a wide topic, abounding in curious results, and these of equal interest to physiology and pathology.

Dr. Holland's own observations refer, however, more especially to the influence of certain states of air or weather in producing morbid conditions of the body; either in their immediate effect, or indirectly by evolving or giving greater activity to other causes.

After a recommendation to all practitioners, to endeavour to connect, so far as that can be properly done, the prevalence, type, and change of disease on a single spot, with corresponding conditions in the atmosphere around it, Dr. Holland proceeds:—

"But besides the recognized diseases of certain seasons, there are others not in general so considered, which nevertheless are frequent enough, at particular times, to make it probable that atmospheric influence is concerned. My notes furnish me with many instances of this kind; some of them, indeed, liable to question, as being possibly the result of casual or unknown causes; yet deserving notice in the suggestions they afford for future observation. It cannot be doubted that affections of the head, depending on disturbed balance of circulation through the brain, do at some periods much exceed the common average of these cases. The same remark I would extend, on my experience, to various neuralgic disorders; including under these some affections, usually termed rheumatic, which are thus, however, most correctly classed. Lumbago and sciatica are undoubtedly more prevalent in certain states of atmosphere: and we may recognize a similar effect in the familiar instance of pain renewed in old sprains, or in joints affected by former inflammation. Further, though more doubtfully, I have found reason to think that attacks of gout, in patients having this habit of body, are more common than usual at certain periods, without other cause to which this can reasonably be assigned.

With respect, again, to disorders of the internal membranes; while many of these are noted as prevailing at particular seasons, there are others not thus described, yet which observation shows to depend greatly on external causes,

giving them frequently an epidemic character. Every physician must have noticed a class of bowel disorders, almost specific in kind, which prevail extensively at one time; while, at another, there is the tendency, not less marked, to different forms of cynanche, or to erythematous inflammations of the fauces, palate, and gums. Erysipelas evidently prevails more generally and severely under particular states of weather, and these not connected with any regular occurrence or character of seasons. The infantile fever, however it be classed in our nosology, is clearly the subject of external influences, to the same extent, and possibly in the same way, as the exanthematous disorders. And with respect to gastric fevers in general, whatever name they assume, we have evidence of their becoming epidemic under certain continued states of weather; and apparently alike at different periods of their occurrence.

Hooping-cough may be further mentioned, as obviously partaking in the same liability. The different affections of the membrane of the air-passages,—catarrh, croup, asthma, and bronchitis;—though not all depending on this cause solely or equally, yet are greatly under its influence; and rendered more frequent or severe as particular conditions of atmosphere are present, or prolonged in duration. Even bronchocele, a disorder of which it is so difficult to render any plausible account, seems to afford another example of this influence.* Other glandular affections are much more frequently and certainly submitted to it." 460.

Setting aside accidental miasmata in the air, any inquiry continues our author, respecting the influence of weather in the production or modification of disease, must include four principal objects:—*first*, the temperature of the air;—*secondly*, its hygrometrical state;—*thirdly*, its weight;—and *fourthly*, its electrical state and changes. The agency of winds may obviously be referred in great part to one or other of these conditions. That of light, though the facts are sufficient fully to prove its existence, is too subtle to be well defined in the present state of our knowledge.

It is impossible to follow Dr. Holland in detail. We must select such passages or such ideas as appear to court particular attention. Amongst these we observe some remarks on the application of cold in fevers, which though not novel, are, we think, very true.

"Almost may it be taken as a rule, that wherever there is a hot and dry skin, cold in one degree or other may safely and expediently be applied to change its state. The benefit of simple abstraction of heat is great in such cases; and the fact is not sufficiently adverted to, which I have often put to thermometrical test, of the extent to which this influence is diffused beyond the surface to which the cold is immediately applied. There is no real risk here to countervail the good gained. We are sedulous in providing for and varying the application of heat to the body; while, from one cause of alarm or another, little provision is made for the opposite remedy, though not less capable of being actively and beneficially employed." 469.

As Dr. Holland observes, the facts and recommendations of Dr. Currie have either not sunk deep into our minds, or popular prejudice has struggled very successfully against them.

---

* "One or two instances are known to me, where the ordinary prevalence of bronchocele in a particular locality has been suddenly augmented by many new cases; sometimes numerously in the same family. The cynanche parotidæa is much more familiar as an epidemic at certain periods, in which effect weather may also be concerned; though it is more probable, from the specific and infectious nature of the complaint, that this is only partially the case."

Dr. Holland concludes his observations on the effects of temperature, with a hint or two of some importance. In practice, he says, and for a rule in the habits of life, regard is not sufficiently paid to the different power which different individuals possess, of generating animal heat. This function, whether depending on changes in the blood and manner of circulation, or more directly on the nervous system, is as various in its power and exercise as any other of the body, and requires to be dealt with as such. Each age, too, has its changes in this respect, as well as every condition of health; and precautions founded on them cannot expediently be neglected, provided they are not so minute as to interfere with other parts of the economy of life, equally essential to the welfare of the whole. We have been struck with a piece of the most absurd and pernicious cruelty to children, which appears at present to be quite the mode. The experiments of Dr. Edwards have shewn conclusively that young animals possess a power of generating caloric, very inferior to that enjoyed by their seniors. In despite of this fact, in contempt of the laws of nature, and in utter defiance of common decency and common feeling, children have now their legs and bottoms bared, and are sent into the streets even in cold weather, with clothing which would qualify them for the ballet at the opera-house. If the fathers and mothers of these poor little urchins were served in the same way, they would get no more than their deserts, and their chilblains, rheumatisms, and pleurisies would bring them to their senses pretty speedily.

There are some reflections on alterations in the weight of the atmosphere which appear to us to be very just.

Notable effects, says our author, may occur, when the changes in the weight of the air are frequent, sudden, and considerable, even within the ordinary range of atmospheric variation. Regarding merely the average pressure upon the whole body, it is to be supposed that any very sudden fluctuation, to the amount perhaps of one thirtieth, may produce temporary changes in the balance of circulation between external and internal parts, of much moment to the latter. And these are particularly to be looked for when there is individual liability to certain diseases, or close approach to them at the time. Dr. Holland continues:—

"This observation, as I have already stated, appears especially to apply to affections of the brain. I have made note of two or three periods, since I began practice, during which there has been a more than wonted frequency of apoplectic or paralytic seizures within my immediate knowledge; so marked as to make it difficult to attribute the fact to mere casualty, notwithstanding the many circumstances which tend to invalidate such results when not verified by large averages. The same fact, observed by others, has generally been attributed to external heat alone. But allowing what has already been assigned to this cause the particular character of the weather at these times will scarcely support the inference; nor has the result in question been equally apparent even under higher degrees of atmospheric temperature. While, on the other hand, I have observed at these periods frequent and rapid changes in the barometer, often with great depression of its level; and have noticed at the same time the very common occurrence of lesser affections of the head,—vague and uneasy sensation, oppression, vertigo, and what may be termed a feeling of want of proper balance to the frame—all indicating some cause present which tends more or less to disturb the equality of circulation through this organ.

In fact, the ordinary phrases of heaviness and lightness of air (however mis-

placed or even inverted their use) prove the general consciousness of these changes in their slighter influence on the body. It may be difficult to say through what organ or function this feeling is chiefly conveyed; but probably it is a compound effect of the changes in circulation, in which the sensorium, the lungs, and the muscular system, all participate. Even the organs of digestion seem to be effected, directly or indirectly, by the same causes. Without referring to the doubtful instance of vomiting produced in highly rarified air, I think I have observed frequent disturbance both in the sensations and functions of the alimentary canal, under any rapid diminished weight of the atmosphere, or where its changes were more frequent than usual. I have remarked in the preceding chapter on the indications of disturbance to sleep from the same cause." 482.

We believe that there is much truth in this, and practical men would do well to look to these things rather more closely than they have done. Who has not observed the effect of hygrometric and barometric changes on the head and on the liver? Bilious attacks, as they are denominated, occur as frequently in consequence of changes of weather, as of imprudences in diet. When one perceives the effect of atmospheric alterations on the circulation, can we wonder at the implication of the brain or of the alimentary apparatus?

After many other considerations, Dr. Holland concludes that,—On a general view of the circumstances stated, there is reason to conclude that the influence of the different degrees of atmospheric pressure in disturbing the bodily functions and general health, is rather derived from the frequency of fluctuations, than from any state long continued, either above or below the average standard;—that, of the two conditions, suddenly incurred in any extreme degree, the human frame is better capable of withstanding a rarified than a condensed atmosphere;—and that, in every case, the previous health, and proneness to disorder in particular organs, are greatly concerned in determining the results on the body.

Dr. Holland touches, and not very slightly, on the effects of an electrical condition of atmosphere. He must be sceptical, indeed, who can refuse assent to the belief that such effects on the human body are important. Our own feelings, universal experience, convince us that they are. But their amount and nature are certainly anything but understood at present. This will be our excuse for not alluding more particularly to our author's remarks. They bear the usual impress of his research and observation, but they are too indeterminate to give us confidence to cite them. The only passage to which we would direct attention, is the following:—

"In relation to future inquiry on this subject, the application of electricity as a medicinal agent may best be viewed in the three following ways: first, in its action on the nervous system; secondly, on the blood; and thirdly, on particular organs under disease. The first two topics are the most important; and all that has been stated above tends to show that we may look to these as a basis of future discovery. Many results already obtained (as those recently published by Dr. Addison, in relation to chorea, and the successful experiment of Matteucci in tetanus), make it probable that the use of electricity in nervous and spasmodic disorders, even when depending on the sensorium, may be greatly extended; and though its action on morbid states of the blood seems much less within our reach, seeing the multiform conditions of this fluid, and the practical difficulties of application, yet is the object one well meriting diligent research." 498.

On the Present Questions regarding Vaccination.

Dr. Holland makes some judicious observations on the existing state and the future prospects of vaccination. His argument, or rather his statement of the arguments, need not be entered on. We shall only cite one or two of his opinions, as the sentiments of a man of his experience and character are naturally sought and valued.

He observes, in reference to the duration of the protective influence of vaccination, a point so much agitated, and determined by many with such ridiculous precision, that—there is cause to believe that in some instances the protection has been extended over a period of thirty-five years; but the average duration of that which is completely effective must be rated far below this mark. It has been a question naturally occurring, whether its diminished influence is in any general proportion to the interval of time succeeding vaccination. The documents obtained in England and elsewhere, as well as the results of re-vaccination, favour the idea that such proportion exists; probably not with any exact uniformity of rate, but determined in part by causes intermediately affecting the body. These documents concur in showing a maximum in the number of small-pox cases after vaccination, from the age of fifteen to twenty-five;—few before ten years of age;—and a diminishing number after twenty five, as might be inferred from other considerations. This at present seems the utmost extent of our knowledge on the subject.

It must certainly be deemed in the present condition of our information, a very vague, if not a precipitate measure, to fix on any term of years as the period of protection. But if statistics can do anything for us, they are likely to do this—and to statistics alone we must look for the information. In the course of the next ten years we may anticipate a large body of valuable facts for our instruction.

Dr. Holland, like a man of sense, takes a practical and a favourable view of vaccination. That it is not a certain preventive, is true; but it is in the bulk of cases a preventive, and, where it does not prevent small-pox, it almost always mitigates it.

Pitch the merits of vaccination as low as with any sort of fairness we can, and it remains an unquestionable benefit—such a benefit as was never before conferred on the physical nature of man.

Of the means for attaining a higher security on the part of vaccination, Dr Holland naturally enumerates:—First, the obtaining fresh and genuine vaccine lymph from its source. Secondly, re-vaccination at certain periods, and the determination of the times best fitted for this. Thirdly, improvement in the methods and tests of perfect vaccination. And, fourthly, the influence, moral or otherwise, which is needful with the world, to obtain a more complete and exclusive use of this preventive remedy. Of any *but* moral means under the latter head, we own that we are far from sanguine. Stringent measures sin against the spirit of the age, and the personal liberty which is claimed by the citizens of all free states. It is true that, in instances of this kind, an infringement of such liberty would be for the good of those who are coerced. But that coercion implies power, which, though exercised to-day for good, may to-morrow be employed for evil; and, un-

fortunately, the experience of men has taught them that the evil will be inflicted oftener than the good. Despotism has its advantages, but liberty has greater; and if the latter brings some mischiefs in her train, she but shares the imperfections of all earthly things.

Dr. Holland is an advocate for replacing the vaccine matter, now in circulation. But, as he justly states, unhappily, the means of attaining this object have not corresponded with its urgency, or with the common impression prevailing on the subject. In England, as in other parts of the world, there has been found an unexpected difficulty in recovering the genuine vaccine lymph. The disease is not only rarer among cows than it was presumed to be, but blended in them with other pustules and vesicular diseases; several of these affecting the human subject with a spurious pock; others incommunicable; but all adding to the embarrassment of the research. We need scarcely add, that Mr. Estlin has succeeded in the most gratifying manner, in obtaining it.

Alluding to re-vaccination, Dr. Holland throws out these suggestions:—

"It becomes of consequence to define the best period for a practice unequivocally desirable at one time or another. And, reviewing all that has yet been learnt on the subject, I am led to believe that where there is fair proof of the original vaccination being perfect in kind, the period best to be sellected for repetition is that from ten to twelve years of age;—a time anterior to the more explicit changes of puberty, and preceding the age at which the liability to small-pox is shewn by averages to be again most frequently renewed. Future facts may modify or alter this view; but meanwhile it appears to be sanctioned by the evidence we possess, and is liable to no risk of inflicting injury, even if hereafter found to be less expedient than some other yet undetermined. And it may be added, that re-vaccination, securely performed at the period named, might possibly render any further repetition needless; such inference being drawn from the tables in our hands, and from the general fact of liability to small-pox diminishing as life proceeds. It must be admitted, however, as still more open to future corrections than the former, and can only indeed be determined by time." 411.

All things considered, Dr. Holland takes the age of two or three months to be the fittest for the primary vaccination—avoiding, as we do, thereby on the one hand, the rashes and bowel disorders, which often occur in the first weeks of life;—on the other, the period of teething and the various febrile irritations which attend it;—while at the same time not unduly exposing the child to the intermediate risk of small-pox.

We quite agree with our author that there ought to be no mystification with the public. The case should be stated as it is. We should *not* say that vaccination is a certain preventive of small-pox. But we *should* say; that it is a very likely preventive, and that with the precaution of occasional re-vaccination, it will probably be an effectual one. The evidence in favour of vaccination is as strong as that in favour of almost every thing which men generally deem eligible in life—a strong balance of chances on its side. Dr. Holland recommends the following mode of putting the case to a parent:—

"Were I to suggest any manner of reasoning, most generally effective for these objects, and best according with the truth of facts, it would be some such as the following:—'Your child is at this moment liable to a dangerous and loathsome disease. If you inoculate him for small-pox, you give the disease in

a milder form indeed, but always distressing, sometimes fatal, and not absolutely certain as a safeguard against recurrence. If you vaccinate, you afford him, without pain or risk of any kind, protection probably complete for a period of years: capable of being readily renewed; and, when failing of completeness, greatly mitigating the severity of the disorder.'

To some persons the motive may be added, that by inoculating for the small-pox they become a party to keeping this poison still in the world. But practically it may be found better to limit the reasoning as stated above. And the argument for re-vaccination, as the facts now stand, may be enforced in the same sense. 'Your child has had perfect protection for a certain period of life. There is cause from experience to presume that this protection is now drawing to an end, or perhaps is altogether lost. By re-vaccination you renew it, if renewal be required, without risk, suffering, or the confinement of a single hour.'" 416.

From a chapter,

ON SLEEP,

We only extract the following observations:—

"I have found that any very sudden and considerable fall of the barometer produces in many persons a sort of lassitude and drowsiness, followed by restless and uneasy sleep, or frequently a state of laborious dreaming. It may be doubted whether this influence depends on changes in the balance of circulation thus produced, or on alterations in the electrical state of the air concurring with its change of weight, and affecting (as we have often cause to suppose likely,) certain functions of the nervous system. However this be, I cannot doubt the reality of the fact as one of frequent occurrence. It is indeed merely an example, among so many others, of the partial subjection of the phenomena of life to the agents which are ever in movement around us."* 453.

The influence of weather in producing drowsiness is a subject of common observation. That effect is usually found, and has commonly been noted when the air is moist and loaded with electricity. The same state of atmosphere, which seems to give birth to congestion about the head, disposes to what are called "bilious attacks"—conditions of the liver, in which congestion probably plays a principal part also. Subjects of this nature appear to us, as we have remarked, to receive less attention from medical men than they deserve. A right understanding of them may lead to the prevention of much annoyance, not to say serious disorders, and those who are subject to determination of blood to the head, would do well to devote some attention to them.

---

* "During the month preceding the time when I am now writing, (April, 1836,) there have been two or three very singular and sudden depressions of the barometer, (one of more than an inch within a few hours, from a point already low,) attended by gales of unwonted violence on the southern and western coasts of England. It has occurred to me on all these occasions, but particularly on the latter, to observe similar influence, as respects sleep, on myself and many different persons; taking for evidence those in ordinary health, rather than such as were suffering under malady at the time."

ON THE MEDICAL TREATMENT OF OLD AGE.

This is really an important matter, however some may smile. To the patient it is important, for the nearer the old man approaches the grave, the more repugnant he usually is to step into it. To the medical attendant it is important also, for his *best* patient is not unfrequently his oldest one.

Nor is the medical treatment of old age so much a matter of moonshine as some persons may suppose. It has its peculiar diseases, its dangers to be warded off, its tendencies to be consulted, its weakness to be supported. To do all this requires discretion, experience, skill. The old practitioner knows this sufficiently, but the young one often does not. Dr. Holland justly observes:—it is understood that the rules which apply to other periods of life require alteration here, but the causes and extent of this are not always considered. True it is that old age is not to be reckoned merely by number of years. Family temperament, individual constitution, and the incidents of life, all concur to modify the time at which those changes begin which warrant the term in a physiological sense, and to effect no less the rate at which they proceed. Old age, moreover, may be said to be unequal in different individuals, as respects the different parts and functions of the body;—this diversity arising out of the same general causes which have just been assigned. Hereditary malady, or incidental disorders, often bring on premature decay in one organ, while others are comparatively untouched by time. In short, the treatment of old age requires much judgment and much attention.

Dr. Holland first touches on the changes which occur in the body in old age. We need not specify them. But we may allude to the decay of the mind.

"It is one opinion on this subject that the sensorial functions, later perhaps than others we possess in reaching their respective completeness in each individual, are the first which begin to decline. The assumption is a very doubtful one: but however this may be, the enfeeblement is certainly not in the same ratio as to time for all the faculties; the losses not equal of the ideas of knowledge of different classes, and different periods of acquisition. Does not the faculty of receiving and associating fresh impressions for the most part decline earlier, than the power of combining and using those formerly received? Is not the faculty of directing and fixing combinations or successions of ideas one of those earliest impaired? In a lady of 91, whom I am now attending, the decay of the mind shows itself especially in the dependence of the course of ideas on the sound of words. A word, or even part of a word, of double application, will suddenly, and without the consciousness of change, carry off the mind to a new and wholly foreign subject. In another elderly patient, whose memory is singularly tenacious as to persons and detached events of past life, there is a singular incapacity of associating them together by any reasonable link; and the slightest relations of time or place sufficient to carry the mind wholly astray from its subject. Such instances, by no means uncommon, have close kindred to the state of dreaming; the power of combining and directing the course of thought being similarly impaired in both cases." 273.

It is not wonderful that the memory of recent circumstances should be fleeting in those advanced in life. Ideas are impressions received through the medium of the senses—in old age, the senses are impaired, the impres-

sions consequently less vivid—they are naturally therefore less permanent. This explains why the memory of events long passed should be more perfect than that of events which have recently occurred; but it does not explain why the former should be as perfect as it often is. Perhaps it may be that the circle of the octogenarian's ideas being bounded, the continual recurrence to the existing stock rivets them more strongly in the memory. We should say, however, that as a general rule, the memory of the old is enfeebled every way; the oldest and most familiar objects are frequently forgotten, or only partially remembered. We quite agree with our author, that:—

"It would seem, as respects the decay of memory more especially, that the power of recollecting words and names is lost earlier and more readily than that of events, both in effect of old age, and of accident or disease. This fact is strikingly attested in paralysis and other cerebral disorders; where, the ideas still remaining distinct, words are partially or wholly wanting for their expression; or others, by a strange and inexplicable perversion, are substituted, having no relation to the intended sense.

In another chapter I have noticed (what perhaps is more hypothetical) the absolute tardiness of mental operations in old age, whether of perception, volition, memory, or thought. It seems impossible to exclude the direct notion of time from these cases, as compared with others where the functions are in full vigour of power and exercise." 274.

But to turn to more medical and less physiological matters. Dr. Holland lays it down as a canon, obvious when enunciated, too often forgotten or set aside, that we ought not to interfere,—or, if at all, with care and limitation,—in those cases where changes, irretrievable in their nature, have occurred in any organ or function of the body. How frequently do we see this truism practically denied. Hospital physicians and surgeons, more especially, acquiring, as they do, rough methods of treatment and a certain degree of hastiness of decision, are apt to discharge their drugs and instruments upon all symptoms and all ailments, and would seem to consider the removal of the complaint for which they are consulted the great and paramount and imperative object, even though the patient is removed along with it. Dr. Holland thus touches on the delicate considerations which cluster round this question.

"To urge medical treatment, in face of distinct proof to this effect, is to sacrifice at once the good faith and usefulness of the profession. This is a point the more needful to be kept in mind, as the patient himself, and those around him, are rarely able or willing to recognize it. It is often an exceedingly nice question of conscience, as well as of opinion, to define the extent to which practice may rightly proceed in such instances; always admitting, as must be done, that something is due to the feelings of the patient; something also to the uncertainty of our own judgments, antecedently to actual experience. This question in medical morals, like so many others, cannot be treated as a general principle only. The integrity and discretion of the practitioner must ever be appealed to for guidance in the endless variety of particular cases. In some, concession to a certain extent is safe, or even justified by indirect advantage to the patient. In others, mischief alone can arise from this meddling with the course of nature; and bad faith or bad judgment are involved in every such act of practice." 276.

There is always this drawback on negative practice in what we consider irremediable lesions, that our judgment is fallible, our means of determining what is and what is not curable imperfect. If too confident either way,

we may inflict mischief—by leaning to the side of drugs and hope we may interfere injuriously—by a prognosis over gloomy we may withhold relief which it would be in our power to offer. This is only one of the thousand illustrations that present themselves of the impossibility of acting in the practice of medicine upon certain general rules, and of how much depends on the individual practitioner.

Our author proceeds to comment on the injudicious neglect which has been shown, in modern times, to the humoral pathology. Of this there cannot be a question. The changes of the solids have usurped our attention, monopolized our remedies, and the fluids have been treated with as little respect as ditch-water. But chemistry is rapidly undeceiving us, and a fair field lies open this way for research, and, probably, discovery.

Habitual discharges have, as a consequence of our outrageous solidism, been interfered with and suppressed, to a very mischievous extent. The evils of such practice tell most strongly on old age. A little violence, at that period, goes a great way in damaging the machine, and, no doubt, by such violence, it often is damaged. We seize the opportunity of drawing attention to the subject, and we dwell with pleasure on the judicious cautions of our author. He instances some of the particular discharges with which he counsels us not to meddle.

1. "In the Catarrhus Senilis, for instance, and the various bronchial affections of old persons, we have to consider whether it is expedient to put an active check upon them (therein complying with the demand almost always made from the physician), or whether the mucous or other discharges they involve are not really a safeguard to the constitution; an outlet provided for that which, retained in the blood, would create disorders of more critical kind? Without affirming it to be so in every case, my experience assures me that, in many, the practice of restraining such discharges is injurious in the attempt, hazardous if it be really effected. I entertain no doubt, from proofs furnished at every period of life, and particularly from the evidence by metastasis (of which I have noted many curious instances) that these large mucous secretions are often as essential to health as the secretions from other organs, which we assiduously seek to sustain. The necessity for them, having doubtless some relation yet unknown to the healthy properties of the blood, varies exceedingly in different habits, and at different ages; and this variation we can often distinctly connect with the state of other secretions; sanctioning the term vicarious, though not perhaps in the absolute sense in which it is sometimes used. We may seek to moderate occasional excess; to facilitate expectoration; and to regulate the cough so that it shall interfere as little as possible with rest. But to urge practice beyond this, in control of habitual symptoms, is more frequently a mischievous interference than a right direction of medical treatment.

The latter symptom, of cough, is that for which the physician's aid is most generally invoked, and where concession is too often and indiscriminately made. For, whether the secretions from these membranes be necessary or not, the act of coughing is at all events needful for their extrication or removal: and cases must have occurred to every practitioner, where it is difficult to avoid the conviction that the sudden arrest of this, by opiates or otherwise, has accelerated a fatal event."

All this is very practical and very sound. It were well if it were more attended to. In the catarrhus senilis we have found most benefit from those sedatives which do not check secretion, digitalis and the prussic acid.

2. Many hesitate to interfere with cough, who do not hesitate to interfere with an attack of lithic acid gravel. Dr. Holland remarks:—

"A similar caution may be given as to interference with the secretion of lithic acid from the kidneys, generally increased in amount in old age. Alarm is often excited by the large quantity of this coming away, and alkalics are as largely given to obviate it. When there is tendency to concretion or occasional lodgment in the kidneys, this may be proper; but where the discharge is free and without distress, and there is no obvious disorder of internal organs attending it, the wisest practice is, generally, that which most refrains. This discharge indeed is often the most effectual outlet for that which, retained and accumulated, becomes a source of active disease, particularly to the brain, in those of advanced life. I have known many patients never well, unless when such removal of animal matters through the urine was largely going on." 278.

ON SOME POINTS IN THE PATHOLOGY OF THE COLON.

Dr. Holland doubts whether all the functions and disorders of this bowel have obtained proper attention in practice, or their influence in producing disorder elsewhere been sufficiently regarded. He deems it certain, as do we, that the colon is not simply an organ of transmission, but an organ of excretion in no unimportant degree. The diseases or disorders to which he refers are not those with which pathologists are familiar, but rather such as occur to the observation of physicians in practice, and possess, perhaps, some degree of vagueness.

"1. Many morbid states attributed, with the too frequent vagueness of medical languge, to the stomach and liver, are chiefly, as I believe, connected with the colon as their seat and source. This remark applies alike to disorders of secretion, and to those in which the symptoms depend either on nervous sympathy, or simply on the mechanical effects of juxta-position and attachment of parts. As respects the first of these cases, it cannot be doubted that many of the various egesta from the bowels, usually termed bilious, and treated as such, have no other relation to bile than that of mere admixture. They are separated from the vessels or glands of the larger intestine by exudation or secretion,—act upon the contents of the bowel, as well as upon the living parts of the system, according as they deviate in quantity or quality from the healthy state,—and, in the excess of such deviation, indicate a state of the glands and secreting membranes, or it may be of the system at large, connected with some of the most important diseases of which we have knowledge." 171.

The "coffee-ground" matter, often described as disordered bile, is believed by Dr. Holland to be separated in great part in the lower intestines. We should say that the prevailing opinion refers such egesta to exuded blood, rather than to bile. Our author goes on to remark, that those secretions also which resemble chopped grass or spinach have probably the same origin; and even of the liquid which is called green bile it is doubtful what proportion may come from the liver. The colour of what passes from the bowels is often the effect of changes taking place within the intestine itself. This may readily be conceived, looking to the many materials present for chemical combination, both in the egesta and secreted fluids; and to the facility with which colour is changed from very slight causes, such as a small excess of acid, in matters thus composed. We feel some hesitation in subscribing to the opinion, that bile does not enter largely into the composition of the spinach or green stools. No doubt that vitiated intestinal secretions help liberally to compose them; but the colour seems to us to

depend essentially upon bile. If Dr. Holland, however, is right, the liver is often charged with more than belongs to it, and mercurials are much abused.

2. "In like manner, those other secretions which have the character of minute specks of blood disseminated through a fluid; or sometimes of a black matter almost as deep as ink in colour; may be considered chiefly owing to exudation from the mucous membrane of the bowels. These secretions or exudations, which contain elements of the blood and partake much of its nature, may be extravasated, it would seem, from the membrane of any part of the intestines. But I have seen instances where products of this nature, coming away in large quantity before death, have been found on examination everywhere lining the coats of the colon, without any appearance of similar kind in the smaller bowels." 172.

The discharges in question vary in character from that of pure blood to that of the most inky fluid. Our author calls attention to the occasional relief which such evacuations afford. He has seen many cases of hypochondriasis of long duration, many also of protracted disturbance in the action of the heart, speedily and wholly relieved in this manner. Some of these excretions, he continues, are exceedingly noxious if retained in the body in which they are generated. In the case of a vigorous young man of two and twenty, the pulse, habitually about seventy, was brought down below forty, and rendered very irregular, by the passage through the intestine of a large quantity of that peculiar secretion resembling black oil; the pulse rising again immediately after it was removed from the body.

"The treatment of the cases mentioned above is not without many difficulties, and we have reason to believe that mischief is often done by a mistaken practice. To deal with these instances as with common diarrhœa, by opiates and astringents, may injuriously interfere with actions beneficial or needful in their results. On the other hand, irritation, by medicine or otherwise, to the vascular surface which is the source of these peculiar excretions, may inflict mischief of another kind, and equally prevent a salutary issue.

These difficulties, in truth, are common to cases of diarrhœa of more ordinary kind, arising out of the complication of the causes concerned;—the various ingesta received into the stomach,—the different secretions poured into the alimentary canal, as well from the large glandular apparatus of the liver and pancreas, as from the innumerable mucous follicles in every part of the canal,—and further, the great extent of vascular surface from which fluids may be separated by exudation or otherwise. In effect of this, a great variety of division and nomenclature has arisen as to these disorders; adding much to the embarrassment of the student, and increasing the chances of error in practice. It will probably be admitted by all who give honest expression to their experience, that even in these very familiar complaints the rule of treatment is less certain and consistent than in most other disorders, fluctuating perpetually between the doubt whether the diarrhœa present is to be checked by direct means, or allowed to proceed on its course?—whether medicines should be given with intent gradually to alter the secretions; or, with a bolder hand, to remove at once such as may be disordered or hurtful? This uncertainty of practice in bowel complaints, as they are termed, can only be obviated by experience, and the careful observation of what is mere mechanical irritation,—what vitiated secretion from other topical causes,—what the separation of noxious matters from the blood through the liver or intestinal membranes. Technical rules here may be too minute, as well as too general and vague, to be useful in practice. At all events, they can never supersede individual discrimination." 175.

We quite coincide with the preceding observations. If every man of experience were freely to admit the truth, he would probably confess that he had often experienced as much difficulty in treating diarrhœa, as in managing complaints esteemed of more consequence. The same doubts and the same difficulties apply to the treatment of other discharges, and for exactly the same reasons. Most discharges are salutary in some degree, and for a certain time—an evil, beyond a limit, difficult of determination. No general rules can assign the line of demarkation between the useful and the injurious, varying, as it does, in every case. The discrimination of the practitioner himself must determine in each case.

3. Alterations of the calibre of the colon, from accumulations in it, or variations in the situation of its parts, may give rise to symptoms that demand consideration. The functions of the stomach, and even of the heart and lungs may be much disturbed by detention of the transverse arch of the colon, whether from air or from fæces. Dr. Holland is of opinion that many states of disorder supposed to belong to the stomach are really due to this cause. The distress so common to dyspeptic patients in the course of the night, and obviously connected with the bowels, seems frequently to belong to this part of them especially; the recumbent posture giving more effect to all such irritations as depend on its distention and pressure on adjoining parts.

"Disturbances in the colon are not unfrequently mistaken for complaints of the kidneys; and there is the greater liability to this mistake from the influence they really have, (either mechanically, or by some cause of sympathetic irritation, or by changes in the circulation), in disordering the state and secretion of the urinary organs. Whencesoever it arises, so close and frequent is this connexion, that we may always expediently begin the treatment of apparent disorder of the kidneys by full evacuation of the larger intestines; secure that we shall obtain alleviation in this way, if not entire relief. Few of the means especially directed to the urinary organs are so effectual as those which operate upon them through this part of the intestinal canal." 178.

We must confess that this does not square with our experience. We have not found that remedies acting on the colon exert the degree of influence attributed to them by our author. Attention to the bowels is requisite, no doubt, but it only acts in affections of the kidneys as an adjuvant to other and more powerful means. Such, at least, is the result of our experience.

"Many pains in the back and loins, which pass vaguely under the names of lumbago and rheumatism, are distinctly to be referred to the same cause. The effect of treatment here is usually the most certain proof; purgatives and injections relieving these symptoms speedily and effectually in some cases, failing in others. The very peculiar pains in the same parts, which attend the whole course of acute dysentery (and which are by no means sufficiently indicated in the common descriptions of this disorder), give further evidence how remarkably the morbid state of these bowels affects the adjoining textures." 178.

Cramps, he continues, and other spasmodic and painful affections of the lower limbs, are a frequent effect of the mechanical distention of different portions of this bowel; perhaps, also, of disordered secretions lodged within or passing through it. Of the latter we obtain proof in the very common concurrence of these symptoms with dysentery or ordinary diarrhœa. The acid also, which, according to recent observation, is for the most part pre-

dominant in the larger bowels, may be in such excess as to produce various disturbance by sympathetic irritation. The cæcum, of course, is most liable to distension, and the effects of this upon distant organs are so various and considerable as to require discrimination in practice. Dr. H. has seen more than one case, where pains were produced in the right leg, severe and constant enough to suggest the idea of more permanent disease in the joint or limb. We have seen a fixed and burning pain in the sole of one foot removed by evacuations from the bowels; and a fixed pain in the occiput was suddenly put to flight by the voiding of some hardened fæces.

"There is some difficulty in understanding the cause of those circumscribed swellings, to which all parts of the intestines seem liable, and which are sometimes so contracted in extent as to convey to examination the idea of hard, well-defined tumours, occasionally deceiving for a time by the resemblance. These swellings, as well as all other distensions and inequalities of the bowels, are more frequent in the female habit, and seem in certain cases connected with the peculiarities of the hysterical temperament. As the passage along the intestine, though impeded, is not generally closed in these cases, we must suppose that its coats are distended into a sac out of the direct course of the canal; originally, perhaps, from air generated suddenly or detained in this part of the intestine, or from the irritation of other more solid matters producing partial contractions, with relaxation of the intervening membrane and loss of power in the muscular coat. The sudden and unequal distension of the bowels from certain articles of food, or during the action of irritating medicines, illustrate the nature of these more circumscribed swellings. They are often relieved by a single active purgative (with which creosote or cajeput oil may beneficially be combined): but the habit of using frequent laxatives, by weakening the canal and rendering its motions irregular, increases the tendency to such disorders." 179.

In speaking of tympanitis, and of the various distressing sensations which arise from distention of the colon, our author takes occasion to add his quota of disapprobation of the system of violent, or, at all events, over-active purgation, which prevails too much both with patients and with doctors. It may be reasonably hoped that it is falling into sure but certain discredit with both.

Dr. Holland would direct particular attention to examination of the tongue. Yet he seems to own that he has not made much of it. He concludes with a hint, which may be acted on by our readers as an experiment:

"I will merely remark that, in many painful and spasmodic affections of this bowel, more aid might be got from external applications over the back, whether stimulating or anodyne, than is usually done. I have often found them greatly more effective here than on the abdomen, where they are generally used from regard to convenience; and this remark especially applies to the complaints of children. The remedy so employed, comes nearer in many places to the actual seat of disorder, and has more diffused effect on parts continuously affected. Where opium cannot be given internally, its employment in this way by embrocations is often very beneficial, provided these be adequately used. And even where such means are not effectual alone, they at all events come greatly in aid of those which are administered within." 182.

ON HEREDITARY DISEASE.

Without entering into the philosophical and physiological inquiry which

hereditary peculiarities suggest, we may say a word or two, and quote a fact or two in relation to them.

Hereditary tendencies to morbid actions play, probably, a more important part, and merit more the attention of practical men, than seems to be generally supposed. Dr. Holland thinks that the general law which regulates them, is that developed by Dr. Prichard—that all original or connate bodily peculiarities tend to become hereditary; while changes in the organic structure of the individual from external causes during life, end with him, and have no obvious influence on his progeny. Dr. Holland admits that this law has many exceptions, but to us it appears to be radically unsound. In the first place, it is clear that either Adam must have had a spice of most diseases in him, or else the subsequent origin of each must have been an infraction of the law. In the next place, everyday observation appears to contradict it flatly. Thus, a man of originally good constitution abuses it, and becomes phthisical. Will his offspring, begot while he labours under this disease, have a tendency to phtisis or not? Experience shews that they commonly will: and this in spite of the law. Take lues as another instance—take insanity as a third. Whichever way we look, we see reasons for doubting the existence of the law laid down by Dr. Prichard. That there is a limit to the transmission of morbid actions is unquestionable, but that limit appears to us more subtle and less defineable than the one assigned. One means of limitation undoubtedly resides in the influence of one parent neutralising more or less that of the other, in the constitution of the offspring. In families we constantly see a child present a resemblance in feature and in habit to one parent in particular. That parent may be the more healthy one or the less, and, in either case, the hereditary disposition obviously receives a bias. This infusion of fresh blood, acting in a manner which we do not comprehend, and which we cannot calculate, must interfere materially with the hereditary transmission of morbid peculiarities, and with the enunciation of any formula for their occurrence.

We may cite, for the purpose of graving the subject on the attention and memory of our readers, some instances of hereditary diseases which have occurred in the practice of our author.

"An instance is known to me of hydrocele occurring in three out of four successive generations, in one family,—the omission adding to the singularity of the fact, from its depending on a female being the third in the series, in whose son the complaint re-appeared. I am acquainted with a family, in which there are three examples, the father and two children, of inability to distinguish red as a colour. Another example, resembling the last, is known to me, where three brothers, and two or three children of their families, have the inability to distinguish between blue and pink. Instances of this kind as an hereditary defect are far from infrequent.' I have known squinting to occur in every one of five children, where both parents had this defect. The repetition of cases of deaf and dumb children in the same family is well known to those who are concerned in institutions for the relief of this congenital defect. An example has recently occurred to me of that remarkable affection, the *suffusio dimidians*, existing in a father and his daughter; and brought on in each by circumstances singularly alike. In another family I have seen several instances of the peculiar tremor tendinum of the hands and arms, which is sometimes called the shaking palsy; and which here occurred in young persons of sixteen or eighteen, as well as in those more advanced in life. In this case, too, I had proof of the peculiarity

having gone through at least three generations. Similarity in the form and setting of the teeth, as well as in the colour of the hair, is often observed between parents and children: and lefthandedness, from whatever this proceeds, sometimes takes the character of a family peculiarity. In a family where the father had a singular elongation of the upper eyelid, seven or eight children were born with the same deformity, two or three other children having it not. In like manner I have seen enlarged tonsils occurring in almost every individual of a numerous family, without other cause by which to explain it.

Eneuresis in children, from whatever source arising, occurs sometimes in so many individuals of the same family, as to make it almost certain that it has a common congenital origin. What is not less remarkable, as an instance of similar specialty, emphysema of the lungs has been ascertained to depend in the majority of cases on hereditary influence, independently of any disposition to tubercular pulmonary disease. Another instance which may be termed special, though belonging to a part of structure diffused over the whole body, is the hæmorrhagic diathesis." 21.

Dr. Holland concludes, and we see no reason to doubt it, that every organ and texture of the body is susceptible of deviations from the normal type or natural structure, capable of being conveyed to offspring; and of producing morbid actions, which are thus, under the name of disease, often propagated through successive generations. This very admission puts to flight the more restricted and hypothetical law of Dr. Prichard.

A curious form of hereditary morbid action is that which Duchesne and others have termed Atavism—where a bodily peculiarity, deformity or disease, existing in a family, is lost in one generation; re-appearing in that which follows. Speculation on its cause appears so unprofitable that we waive it. Indeed, while the ordinary process of generation continues a sealed book, it is not likely that deviations from the usual course of it would be otherwise than unintelligible.

"Connected with the foregoing is another curious variety in the transmission of disease, if so it may be termed, which has been little noticed by medical authors; the case, namely, of several children of a family being affected in common with some given malady, of which there has been no token on the side of either parent. An example has lately occurred to me in one family, of three sons and a daughter, every one of whom underwent an attack of hemiplegia before the age of forty-five, though neither father nor mother had been similarly affected. I find another instance in my notes, where three brothers severally suffered hemiplegia, and about the same period of life, without any record of the like event in the family. I have recently seen a fatal case of cerebral disease, with epileptic fits, in a young lady of twenty-four; two sisters of whom had died about the same age with similar symptoms, though neither parent had been subject to such disorder. I am acquainted with a family in which four children have died during infancy from affections of the brain, without any like instances in the family on either side. In another family, without any similar disease in the parents, three or four children had epileptic fits.

I have notes of several similar instances; chiefly, as I think, but not exclusively, disorders of the brain and nervous system. I have known three cases of diabetes mellitus in brothers, under ten years of age, in the same family; one of them fatal in result. In another instance, four cases of ascertained disease of the heart, all fatal about the same period of life, occurred to my notice in the brothers and sisters of one family; without any suspicion, as far as I could learn, of the parents having been the subjects of this disease. By a singular coincidence, another instance is known to me, where four brothers died, between sixty and sixty-five, of ossification and other disease of the heart; but here there

appear to have been prior cases of the same kind in the family. In the instance of the deaf and dumb, already referred to, the examples are frequent and curious of several children being thus affected (five out of a family of eight, four from a family of seven,) without similar defect existing in the parents. At the School for the Deaf and Dumb in Manchester, in 1837, there were forty-eight children taken from seventeen families, the total number of children in these families being 106; and giving therefore an average of nearly three such cases in each family. Out of these instances, there appears but one in which the defect was known to exist in either parent; and we may rightly therefore consider this as one of the most striking examples of the fact under consideration.*

Some of these examples may perhaps be referred to the condition last mentioned, of the revival of an hereditary disorder, absent in one or more generations. But proof to this effect is wanting in other cases: and the remarkable fact remains, of several children of the same parents being affected in common with a given malady, of which there are no certain prior examples in either family. All physiology is at fault as to the solution of this phenomenon." 25.

It is possible that some of these may be instances of the revival of a hereditary disease, absent in one or more generations. But many cases will still be left, to which a solution cannot apply.

A further variety in the hereditary transmission of disease is its limitation, more or less complete, to the males or females of the family affected. This fact is illustrated by two or three of the instances already given, and seems well attested in the case of the hæmorrhagic diathesis. What tends to involve the subject of the hereditary transmission of diseases in still greater obscurity, is the fact that exciting causes are usually requisite for their manifestation. This will go some way towards the explanation of the apparent influence of sex. The females of gouty family usually escape gout, probably because, in their cases, cold and excesses operate to a less extent.

On the whole, the subject deserves the attention of practitioners, nay deserves it more than would seem to be felt. How few make any particular inquiries on the tendencies to disease in the families of their patients. Yet such inquiries might often elicit valuable information, and afford a clue both to diagnosis and prognosis.

ON MEDICAL EVIDENCE.

We quite agree with Dr. Holland, that there can be few better tests of a sound understanding than the right estimation of medical evidence. It is a calculation of probabilities, and there are none who are so free from prejudice or so powerful of intellect, as to be able to single out each circumstance for consideration, and to give to it just its proper value.

Medicine can never be a demonstrative science, because given causes are

---

* "As a curious variation of the same general conditions, a case is known to me, where the children of parents, each deaf and dumb, are themselves free from that defect. In another large family I have known almost every child short-sighted, without either parent being so."

not followed by uniform effects. The wet stocking which gives one man rheumatism, gives another inflammation of the lungs, and another colic.

The dose of calomel which stimulates A's liver and bowels, salivates B., and simply makes C. nervous. Men's constitutions differ so widely, that neither the causes of disease, nor its course, nor treatment, can be reduced to simple and unvarying expressions. Each case, consequently, is a special subject for study, and he is the best surgeon or physician who is able to study it best.

Yet these difficulties do not make medicine cease to be a science. On the contrary, it is a science of a high character, giving exercise to the strongest mind, and demanding the greatest powers of analysis. This very circumstance is unfortunate for physic. The demand on the intellect of its professors is too great. Indolence and ignorance both shirk the labour of investigation, and knavery affects it—all secure from exposure by reason of the incompetence of the public tribunal.

In the following observations we cordially coincide with our author:—

"It must be admitted, indeed, that this matter of medical testimony is too lightly weighed by physicians themselves. Else whence the so frequent description of effects and cures by agents put only once or twice upon trial; and the ready or eager belief given by those, who on other subjects, and even on the closely related questions of physiology, would instantly feel the insufficient nature of the proof. Conclusions requiring for their authority a long average of cases, carefully selected, and freed from the many chances of error or ambiguity, are often promulgated and received upon grounds barely sufficient to warrant a repetition of the trials which first suggested them. No science, unhappily, has abounded more in false statements and partial inferences; each usurping a place for the time in popular esteem; and each sanctioned by credulity, even where most dangerous in application to practice. During the last twenty years, omitting all lesser instances, I have known the rise and decline of five or six fashions in medical doctrine or treatment; some of them affecting the name of systems, and all deriving too much support from credulity or other causes, even among medical men themselves." 3.

We fear that the cause of these delusions lies more deeply than a mere facility in admitting evidence. The merits of medical men and their rewards are adjudged by those who are ignorant of medicine, by a prejudiced and a credulous tribunal. How great must be the temptation to appeal to such prejudice, and to impose on such credulity. In the anxious competition, not merely for fame, but for subsistence, means will be resorted to, which, if not distinctly dishonest, tremble on the brink of dishonesty. Whatever speculation carries with it plausibility will be brought before the public, and supported by evidence not weighed in a very rigorous scale. This it is which makes us fear that medicine will be still, as it ever has been, oppressed with false theories and as false facts. Were the evil a mere error of reasoning, a species of false philosophy, time, and the progress of human knowledge would assuredly remove it. But, being what it is, a mischief growing out of the constitution of society and founded on the necessities and vicious qualities of men, we look with despair on the prospect of a reformation.

But we proceed with an examination of what medical evidence *should* be. Dr. Holland observes:—

Look at what is necessary, in strict reason, to attest the action and value

of a new remedy or method of treatment. The identity or exact relation of the cases in which it is employed,—a right estimate of the habits and temperament, moral as well as physical, of the subjects of experiment,—allowance for the many modifications depending on dose, combination, quality of the medicine, and time of use,—due observation of the indirect or secondary, as well as direct, effects,—and such observation applied, not to one organ or function alone, but to the many which constitute the material of life. All these things, and yet more, are essential to the completeness of the testimony. All can rarely, if ever, be reached; and hence the inevitable imperfections of medicine as a science. But more, doubtless, of truth and beneficial result might be attained, were these difficulties rightly appreciated, and the means of obviating them kept more constantly in view.

All this is very just. Yet who, at all conversant with medicine, sees facts so observed—observations so recorded—truth so sought in her most secret places? The very reverse of all this is witnessed. A few cases breed positive conclusions, and the hurry to observe is only surpassed by that to publish. The inherent difficulties which encumber Medicine are aggravated by the rubbish of fallacy and falsehood thrown upon her, and the wonder is that, amidst the confusion, so much is substantially correct.

The fallacies that beset all researches and all reasonings oppress us with additional force in physic—the same pernicious influence of words—the same tyranny of authority—the same prescriptive rights and vested interests in antiquity—the same meretricious blandishments of novelty—and we have, in addition, the ignorance and the interference of the public—an interference the more opinionated by reason of that ignorance. Our author observes only too justly:

"In no class of human events is the reasoning of '*post hoc, propter hoc*,' so commonly applied by the world at large, as in what relates to the symptoms and treatment of disease. In none is this judgment so frequently both erroneous and prejudicial. It would seem as if the very complexity of the conditions necessary to sound evidence tended to beget acquiescence in that which is lightest and most insufficient for truth. The difficulties occurring in practice from this source are great, and require a right temper as well as understanding to obviate them." 4.

It is quite clear that this is an evil the correction of which can come only from the profession. The public never will nor can be adequate judges of medical science. But in proportion as that is improved, the tone of professional reasoning will rise, and the weakness of the uninformed or the arts of the unprincipled among ourselves, will stand out in relief from the general tenor of medical conduct.

Thanks to morbid anatomy, medicine has already gained an immense addition of exactness—thanks to the numerical method, it is now in the act of gaining more. We agree with our author, that averages may in some sort be termed the mathematics of medical science. The principle is one singularly effectual in obviating the difficulties of evidence already noticed; and the success with which it has been employed of late by many eminent observers, affords assurance of the results that may hereafter be expected from this source.

He adds that:—In looking further to the chance of overcoming these difficulties in the future, regard must be had to the principle, now verified

in so many cases, that in proportion to the complexity of phenomena, is augmented also the number of relations in which they may be surveyed and made the subjects of experiment. The application of this principle to medical science is every day becoming more apparent. Each new path of physical knowledge opened, each single fact discovered, has given guidance, more or less direct, towards the objects still unattained in physiology and the treatment of disease. The unexpectedness of some of the relations, thus determined and converted to use, is the best augury for further advances in this direction of pursuit.

On the one hand, then, we see morbid anatomy correcting the vagueness of symptoms, and assigning them to their organic causes—on the other hand, the numerical method tests the value of treatment. Here are two engines of modern improvement, working with a horse power which we cannot yet calculate. Each, especially the first, has effected much already. But morbid anatomy may be said to be yet unapplied to the fluids—and medical statistics are only in their infancy. Then chemistry is in our van. What combinations or what elements may it not produce or evolve for us—what may it not do for physiology and for therapeutics? He must be a timid man who does not think medicine still on the threshold of advancement.

That advancement may be opposed by two cardinal vices in medical men—excessive scepticism or extreme credulity—vices, we fear, of too prevalent a character, and which cannot be avoided with too much care.

On credulity we have already dwelt. But scepticism is almost as pernicious.

"Sometimes," says our author, "this occurs in effect of a temperament of mind (not uncommon among thinking men) which is disposed to see all things under doubt and distrust. There are other cases, where the same feeling, not originally present, grows upon the mind of physicians who have been too deeply immersed in the details of practice. The hurried passage from one patient to another precludes that close observation, which alone can justify, except under especial circumstances, the use of new remedies or active methods of treatment. From conscience, as well as convenience, they come to confine themselves to what is safe, or absolutely necessary; and thus is engendered by degrees a distrust of all that lies beyond this limit.

Though such scepticism be less dangerous than a rash and hasty belief, it is manifestly hurtful in practice, and an unjust estimate of medicine as a science; both as it now exists, and as it is capable of being extended and improved. No one can reasonably doubt that we have means in our hands admitting of being turned to large account of good or ill. Nor is it more reasonable to distrust the knowledge gained from a faithful experience as to the manner of using these, and others which may hereafter become known to us, safely and beneficially for the relief of disease. It is clear that between the two extremes just noticed, there is a middle course, which men of sense will perceive; and to which they alone can steadily adhere, amidst the many difficulties besetting at once the judgment and the conduct of the practitioner." 7.

This explanation of medical scepticism is a rational and just one. Nothing is more calculated to injure physic in the estimation of the world, than seeing its powers doubted and its science held cheap, by men who have reached to eminence in its practice. When the public remarks such scepticism in physicians like Radcliffe, Mead, and Baillie, they are naturally

reminded of the joke of an Augur, that "he wondered how one could meet another in the street without laughing."

And yet such a low opinion of medicine as a practical art is decidedly unjust to it. Will any one contemplate the course of lues, of the phlegmasiæ, of intermittent fevers and other disorders, of many affections of the skin, of the majority of the complaints which come within the scope of surgery, and deny that medicine has great powers of cure? Will any one watch the neuroses and organic alterations of structure, and assert that it has not means of *alleviation?* Will any one study even fevers, and refuse to it the merit of guiding and directing to a safer issue than could in the gross be reached without it? We have a contempt for the mind of that man who really *knows* medicine, in its present state, and doubts its powers. In such a mind there must be something radically wrong—some obliquity which distorts the plainest ideas—some bias which warps judgment and turns comparison awry. That the earlier physicians should doubt physic is possible, without impugning their sense. It was then a tangled mass of hypothesis, to which morbid anatomy had given no solid bottom. But for men of the present day, if there be any, to harbour equal scepticism, is an ample qualification, in our opinion, for Bedlam.

Some persons appear to possess that strange constitution of mind, which in a given question knows no medium between universal affirmation or a total negation. Because there are many diseases uncontrollable by medicine, such persons protest there are none controllable by it. But the practice of physic is not a simple proposition, the affirmative of which is wholly true or false. It is a complex science, some parts of which are quite demonstrable, some probable, and some incapable of reduction to the formulæ of computation. Prejudiced minds of one kind will look to the one extreme, feeble or bigoted understandings of another sort will turn the other way. To avoid easy faith, to indulge in a just scepticism and nothing further, is the province of an intellect which cannot be created by canons, nor defined by language, and which is the mental constitution adapted to adorn and improve the science of medicine.

With the following short quotation we dismiss this subject—a subject of the greatest practical moment, not pertaining to the realms of abstraction and metaphysics, but coming home to the every-day business and the future advancement of our art. The remedy for the unhappy laxity of reasoning displayed by the bulk of the profession, can only be found in the extension of their general education, and in their attention being earnestly directed to questions of the present nature.

"I am the rather led," we quote our author, "to these remarks on the nature of medical evidence, and the causes moral as well as physical affecting it, looking at the wonderful advances which have been made in all branches of science; not by the addition of new facts only, but even yet more by new methods and instruments of research, and increasing exactness in every point of inquiry. The dissimilarity of the proofs, and the greater difficulty of their certain attainment, must ever keep practical medicine in the rear of other sciences. But its still wider scope of usefulness requires that the distance should be abridged as far as possible; and that no occasion should be lost, by improved methods as well as new facts, by more cautious observations, and greater exact-

ness of testimony, of maintaining its fit place among the other great objects of human knowledge."

May his and our aspirations be realised.

ON DIET AND DISORDERS OF DIGESTION.

Dr. Holland would seem to take a gloomy view of our knowledge on the subject of indigestion. No doubt the complaint is troublesome—no doubt the opinions of authors are divided—no doubt there is much of inherent difficulty in the analysis of the phenomena of dyspepsia, and in the application of remedies to it—yet, notwithstanding these drawbacks, we conceive that much has been done to rationalise our views of the disorder, and that a great deal may be effected by experience, care, and judgment, in mitigation of its miseries.

Our author does not attempt to offer a systematic account of dyspepsia. He apologises for the desultory character of his remarks, by pointing to the similarly desultory nature of the complaint.

We should say that Dr. Holland's views lean to a rather dangerous latitudinarianism. He doubts whether rules of diet are not too strict—whether the bowels need be opened daily—whether regularity of hours is so indispensable. Such doubts may, perhaps, be reasonable, but they ought to be cautiously applied to practice, or, we feel confident, they will lead to disappointment. There appear to us to be two classes of cases of dyspepsia—those where the complaint is essentially seated in the apparatus of digestion itself, and the mind is affected through its medium—and those where the disorder is essentially mental, and the organs of digestion are affected secondarily. They run into one another, yet, practically speaking, the distinction holds, and remedies exert a very different influence on each. For the downright physical dyspepsia medicines are more requisite, and strict regimen more indispensable—for the mental, less rigid rules, more moral management, and a more dexterous application of means to circumstances are necessary.

Our author, however, suggests some remedial measures himself.

1. *Food.*—Dr. Holland enjoins, what certainly cannot be considered new, however true the precepts may be deemed:—first, that the stomach should never be filled to a sense of uneasy repletion. Secondly, that the rate of eating should always be slow enough to allow thorough mastication, and to obviate that uneasiness which follows food hastily swallowed. Thirdly, that there should be no urgent exercise, either of body or mind, immediately after a full meal.

Dr. Holland proceeds to remark that the great law of the living economy is this, that the appetite for food is lost or diminished, in exact relation to the impairment of the powers by which it is digested and converted to the uses of the system. And on this he founds a principle of treatment.

"I have mentioned," he says, "elsewhere the aids we are entitled to draw from the patient himself in this point of practice, where disease has restored nature for a

while to its dominion over the appetites. It is rare that any mischief can arise from following this guidance, if care be taken to ascertain its reality. Nevertheless, the physician is liable here to various difficulties, created chiefly by the mistaken importunity of those around the patient. No conviction is harder to be removed than that which regards loss of appetite as itself the disorder,—food as the proper and certain remedy. Even the concurrence of the patient's feelings with the judgment of the physician is scarcely of avail against this persuasion. And when the former are altered in part by returning health, and old appetites and habits begin to recur, the risk of excess becomes greater, by the enfeeblement of that natural control which is the best security against it." 347.

However it may be in the phlegmasiæ, we have serious doubts of the propriety of Dr. Holland's advice in dyspepsia. So far as we have seen, the appetite in this complaint is peculiarly treacherous. It prompts continually both to a quantity and quality that prove injurious. Whoever has laboured under indigestion will, we think, admit this. Nothing is more common than for the dyspeptic to eat so much as to occasion most distressing fullness, and one of the hardest, yet most salutary lessons that he has to learn, is to control that very desire for quantity. On one point we are pretty certain to be right—in not forcing the appetite. We are not so sure of doing well in not controlling it. After all, the rule of practice, though difficult of definition, is tolerably easy of application. A trial or two will prove how far an appetite should be indulged, and individual cases become individual experiments.

We quite agree with our author, that active exercise should not be taken immediately before a meal, any more than shortly after it. He justly observes, that hard exercise and fatigue are often understood as a sanction for immediate and ample food, without regard to the expenditure of power that has taken place, or to the direction which the circulation has got towards the muscles and capillaries of the skin. Those who are exposed to the necessity of long and fatiguing journies speedily learn the error of this. But experience of such kind is generally needed to teach it; nor is this always sufficient against the force of early impressions, and the faulty habits of society.

He adds in a note:—

"I know from my own observation how well Government messengers, and the Tartar couriers of Turkey, have generally learnt this lesson, derived from the necessities of their manner of life, which are far more effectual for teaching than any other maxims. We apply the rule carefully and extensively in the management of our horses and dogs, without rightly heeding it for ourselves." 350.

And the same rule applies to active exertion of mind. Two great corporeal functions can scarcely go on amicably in full exercise at the same moment. The energies of the system, be the nervous or the vascular actions the efficient labourers, require to be concentrated on one important office to perform it well.

2. *Relations of Food and Sleep.*

"Setting aside," says our author, "the effects of particular articles of diet, which it would be impossible to specify, the practical questions chiefly regard the relation of time and quantity of food to sleep; and these are the fitter objects of study, as some averages are attainable and convertible to use. It is clear, for example, from observation both of man and other animals, that a certain

quantity of food in the stomach, concurring especially with the habitual time of rest, tends to produce sound and healthy sleep;—that an excess in quantity brings on such as is broken, uneasy, and oppressed;—while sleeplessness is usually the effect of the stomach being empty and needing support. To these general facts, without inquiring into their physiological cause, may be referred most of the particular relations between sleep and food, and the precepts founded upon them. The fashions of society infringe largely upon the principles thus established; and though the powers of habit and accommodation in the system do much to lessen the evils that result, yet it is certain that some methods are greatly preferable to others, and that observation cannot better be employed than in ascertaining these.

In another chapter, on Sleep, mention will be made of the relation between the principal meal of the day and the time of rest. This is a question of constant occurrence in practice; and, without going into details, it is enough to say that much may be done for the restoration of sleep, where this is at fault, by altering the time of dinner to an earlier hour; so as not only to admit some bodily exercise in the interval, but also a slight supper before going to bed. The benefit of such change from the ordinary usage is often immediate; depending partly on the avoidance of the recumbent posture, and of efforts to sleep at a period of digestion unfit for this state; and further, and not less, on the direct effect of moderate repletion in disposing to rest." 352.

We must say that we hesitate in subscribing to Dr. Holland's opinions on this score. That a small quantity of aliment shortly before bed-time will occasionally conduce to sound sleep, we admit. But as a general rule, we are confident that two or three hours should elapse between the final meal and retirement to repose. Sleep so obtained will usually be more refreshing, and the morning's feelings and appetite much better than when a supper has been eaten. How frequently is benefit obtained from discontinuing suppers—how rarely do we find them agree. Habit, here, as elsewhere, occasionally steps in to supersede all general rules, and to interfere with prescriptions of common utility. But even habit, though too strong to be broken, is not too sturdy to bend, and a supper of beef and beer, or bread and cheese and ale, or of cigars and brandy and water, can be reduced to an innocuous minimum.

3. *Are Vegetables injurious in Dyspepsia?*

"Fashion still too largely tampers with the whole subject of dietetics; and injuriously, as regards the stability of its principles, and their application to practice. Of late years, for example, this fashion has directed itself against vegetable food;—an erroneous prejudice in many, perhaps in the majority of cases. Allowing, what is partly proved, that vegetable matters are carried indigested to a lower part of the alimentary canal than animal food, and admitting that more flatulence is usually produced from them, it still is the fact that a feeble digestion suffers no less, though it may be in different ways, from an exclusively animal diet. Morbid products are alike evolved; and some of these affecting not only the alimentary canal, but disturbing other organs and functions through changes produced in the blood.

I know the case of a gentleman, having the calculous diathesis strongly marked, in whom animal food, taken for three or four days, even in moderate quantity, invariably brings on discharge of lithic acid, as sand or gravel; suspended upon return to vegetable diet. This is a particular instance; but experience in gouty cases furnishes frequent and striking notices of the same general fact; thus indicating a large class of disorders, having much kindred with dyspepsia, in which excess in animal food rapidly becomes a source of

mischief, not merely by overloading the alimentary canal, but by introducing morbid matters into the system at large. A persevering abstinence from any such excess may be reckoned among the most effectual preventives of gout in all its forms.

The rule of health being obviously that of blending the two kinds of food, I believe the exception more frequently required to be that of limiting the animal part in proportion to the other. The fashion of the day sets it down otherwise: and this is one of the subjects where loose or partial opinions easily get the force of precepts with the world at large." 354.

This question, like many others, can only breed endless difficulties and disputes, unless the parties engaged in it agree on the meaning of the terms they employ. If "dyspepsia" is to be taken in a comprehensive sense, to signify affections of the kidneys, and of the skin as well of the stomach and the bowels, then vegetables should not be generally condemned as articles of diet. But in the ordinary case of indigestion, accompanied as it is with oppression at the præcordia and flatulence, it is contrary to our experience, at all events, to assert that it is more frequently necessary to limit the animal part of the food than the vegetable.

No man in his senses orders a great increase of animal food because vegetables disagree. The diet quoad the quantum of meat remains much as before, nay usually diminished, while the vegetable ingredients are curtailed. It would be difficult on theory to shew how this could harm the dyspeptic, and certainly, if our observation is worth any thing, it most commonly benefits him.

We have excluded from these remarks all cases save those of ordinary indigestion, as it usually presents itself in practice. In many instances of cutaneous eruptions, visicular, pustular, and scaly,—in many gouty cases—in many where there is a disposition to the formation of an excess of lithic acid—animal food must be avoided or consumed in very moderate quantity. It is not our purpose to write a chapter on diet, and we confine ourselves to a brief remark or two suggested by our author's text, and as desultory as he confesses that to be.

4. *What are we to do with Wine?*—After some observations on this score, Dr. Holland adds:—

"As regards quantity of wine, for instance, the tests of what is to be deemed excess lie within the scope of ready remark, provided attention be fairly directed to the repetition of similar effects under circumstances reasonably alike. If the excitement of the spirits exceeds that of simple comfort (a condition not difficult to note), then it is certain that there is a state of brain, the frequent recurrence of which becomes a source of serious mischief both to body and mind. Or if, as happens in other constitutions, heaviness and drowsiness ensue speedily on the wine taken, equally is it certain that the quantity is in excess, and will be injurious in proportion to the frequency of repetition. Or if a hot dry skin, and increasing thirst, the inference is the same, and the result no less assured. Or, again, if the early hours of the morning are languid and oppressed, with headache of one kind or other, foul mouth, and weak or disordered stomach, the '*hesterna vitia*' may fairly be called to account, and wine probably as principal among these.

The familiarity of such tests makes them more valuable for practical enforcement; and there are few cases where the patient may not obtain from them, if fairly dealt with, a sufficient rule for his guidance. The same tests will apply to

kind of wine as to quantity; but more ambiguously, from the many new conditions brought in, which neither chemical examination, nor common experience, has yet been able to explain. The importance of the question is fortunately much less than in the other case. It is true here, as with regard to solid food, that, if the quantity be duly limited, the kind, though by no means to be disregarded, becomes of much less significance. It may even be doubted whether any practical good has hitherto been gained by our researches into and classification of wines. The comparison of qualities, of the influence of which upon the body we are very slightly informed, gives a specious license to the indulgence in certain kinds, often quite as hurtful as the more careless use of which the preference of the moment forms the only rule." 358.

We may remark that such a test as this lies exposed to two objections. In the first place, by trusting to a patient's sensation of bare comfort, we use a test of most uncertain character—liable to vary with his fancies, or his frauds upon us. In the next place, the effects of habit must be taken into the account. Comfort on Monday results from one glass of wine—on that day month, the same amount of pleasurable sensation is only reached with the third or fourth glass. Yet no one surely will contend that what is best adapted to preserve health is so fluctuating a quantity.

5. *Bitters.*—"A point of consequence, also, is the manner of using bitters in the treatment of stomach disorders. Experience leads me to think that this is generally too large and indiscriminate. Even were our knowledge of their relative qualities more exact than it is, and our adaptation of them more just in consequence, we still might often render this action more beneficial in these complaints by lighter preparations than are usually employed. Bark, as having other and specific objects, may be excepted in part from the question. But there are various states of stomach in which the ordinary doses and strength of bitter infusions are injurious; while obvious good is got from a more moderate employment of the same means.

Frequently the best mode of using bitters in these cases is in direct combination with the aperient which may be necessary. Thereby a smaller quantity of the latter is usually rendered effectual; and the noxious effects of repetition materially abated. The addition of creosote to laxative medicines is beneficial in similar way; and for this, as well as other reasons, it deserves more trial in dyspeptic cases than it has yet obtained.

The theory and uses of tonic medicines—exceedingly vague, it must be owned, in every part of practice—are not least so in their relation to disorders of digestion. Of those fitly thus termed, iron, in one or other of its preparations, is, according to my experience, the most generally beneficial. Comparing it with the whole class of bitters, I doubt whether there is any one among the latter capable of being made so variously useful. Regard of course must be had, in employing it, to the cause and particular character of the dyspeptic symptoms. But the circumstances which create apprehension, often most needlessly, as to its use, may be readily obviated by its conjunction with whatever laxatives are required; and this, as in the instance of bitters, is often better done by direct combination than by separate employment. The ammoniated iron with an aloetic medicine, or the sulphate of iron in solution with the sulphate of magnesia or soda, will be found among the most beneficial of these forms; and applicable in numerous cases, without other difficulty than what may arise from the patient himself." 360.

We agree with our author that bitters are given too indiscriminately. It is not worth while running into exceptions and specifications, but we should say that these remedies must be given with a light hand. We cannot say

that we have found quite so much occasion to be satisfied with iron as our author, but doubtless, with the precautions he observes, it is often serviceable.

ON METHODS OF PRESCRIPTION.

We quite agree with our author that the simplification of medicine, and of methods as well as principles in the treatment of disease, ought ever to be present to the mind of the physician. And we agree with our author too, that the error is still frequent of aiming at a greater number of objects than can be reached at once, or by any single combination of remedies; thereby forfeiting the good to be derived from simpler and more explicit means. Secondary and subordinate symptoms are apt to usurp a place in prescriptions, due to such only as are essential to the character and course of the malady.

It is impossible to become acquainted with many physicians or their prescriptions, without perceiving the frequent absence of a definite principle in their prescribing. A number of medicines are given at once, perhaps are combined together, because they have all been found serviceable in the complaint. Yet their action may be so various, that the one may neutralize the other, and it is obvious how vague, and perhaps erroneous, experience so obtained must be. There is this additional evil in it, that it tends to cripple our resources, for if the composite prescription disagrees or fails, we are ignorant which particular ingredient has done so, and we must either begin to experiment singly with each, which is a loss of time—or we have left ourselves without *matériel*.

"The best general rule seems to be, to define in every case, as far as can be done, the main object of present treatment,—to make this the basis of prescription,—and to admit, subordinately and under limitation, all such means as apply to collateral symptoms. This rule ought especially to be kept in mind, when a new medicine, or new applications of an old one, are on trial in our hands. Complexity here, especially that which arises from the admixture of new agents in the same prescription, disguises that which it imports us most to know, and which is always learnt with difficulty amid the many conditions tending to obscure the effect. In adding to these the uncertainty of combination, which is itself in most cases an experiment, we wrap one doubt within another, and play false with every just principle of medical research." 111.

From the treatment of disease the transition to its investigation is easy. If method, consistency, and principle were requisite in the one case, they are equally required in the other, and, too often, they are equally absent. Yet the analysis of disease, that is, the investigation of symptoms, must surely require both precision and system. From many phenomena the principal are to be distinguished, and disentangled of the encumbrances that hang upon it. Vague and inconsecutive questions, says our author, whether from timidity in the young practitioner, indifference in the older one, or irregular habits of thought in either, are not merely useless, but often positively hurtful. They defraud the physician of his own judgment, and put the mind of the patient into the state least apt to give right information. Rightly used, he continues, and not allowed to become too technical, a certain rule pursued in questioning the sick will strengthen, by disciplining, the powers

of observation. Nor is there much danger lest this should cramp that higher and rarer quality (derived either from long experience, or from quick natural perception) which enables some men to comprehend at the first glance, to seize by a sort of intuition, all that is most needful to be noted in the diseases before them.

As a general rule, we should recommend the investigation of present symptoms before that of their history. We would also recommend ascertaining at once, which can generally be done, the organ mainly disordered. The questions relative to that should then be put. The examination of the other chief organs and functions must follow, each being separately investigated. The great point is to make the questions hang naturally together. In general, the plan is quite the reverse. The examination is straggling, desultory, inconclusive, and the impression conveyed to the listener, as well as to the examiner himself, is vague and unsatisfactory. But system, however perfect, must bend to circumstances, and there are times when some rambling question, or some gossiping remark, supplies a clue that method could not find. And with practice, what seems a circuitous proceeding, is made alike rapid and effective. As for intuitive diagnosis it is "hit or miss." We have never seen any pretender to it, who has not made the most grievous blunders, though, of course, he will now and then fire a happy shot.

The following cautions are judicious :—

"It is a frequent error in young practitioners to allow themselves to be betrayed into hasty diagnosis or prognosis of disease, either by their own nervousness, or by the importunity of the patient and those around him. The fault is serious ;—not merely as a source of embarrassment, but often by impairing integrity in practice, from the desire to redeem a wrong opinion thus given. It concerns greatly the reputation and usefulness of the profession that every caution should be exercised on this point. Forbearance in words, till the judgment is well decided, is therefore in some sort a duty, as well as an act of prudence. And it further behoves the physician to acquire as much mastery and readiness as possible in the observation of those symptoms which distinguish a disease or foretell its probable event,—another phrase, it may be, for medical experience ; yet with the advantage of being more explicit as to a very important part of practice. If mistakes in judgment be still made (and this will occur to every one,) though their avowal is not always needful or desirable, yet I believe the character of the profession, as well as of the practitioner, to be best sustained by truth ; spoken as a man of sense and integrity will speak it." 113.

This latter recommendation is more praised than practised. We do not think the avowal of error generally advisable, unless the thing is too palpable to be either denied or concealed. The public are not judges of the difficulties of diagnosis, and will seldom do justice to erroneous opinions. The tribunal is consequently prejudiced, ignorant, and very frequently partial ; it may be proper to plead guilty to it, but few are so courageous as to do so.

Dr. Holland observes, that in the treatment of disease, it is not a bad rule to look first to the external remedies befitting each case, before determining those for internal use. This also may seem a trifling suggestion. Yet such technical arrangement, if involving no practical error, is generally useful, and especially to the young practitioner ; who is often painfully harassed, not only by the responsibility of instant judgment, but by the number of objects and methods present to him for consideration. Nor is it

the technical aid alone which is of value here. It is well that every practitioner should keep in mind the expediency of attaining all that is possible by external remedies;—a discreet preference, strongly sanctioned by modern research, and in nowise incompatible with the bold and sufficient use of internal means, when called for by the more urgent necessities of practice.

And he adds:—The physician who leaves the bed-room of his patient, especially in cases of fever or acute disorder, without attending to more than the prescription of medicine and diet, has very imperfectly fulfilled his office. He is bound further to look to temperature and ventilation; the fit state of the patient's bed; his posture; the needful changes of clothing; the proper use of water for cleanliness or coolness; and the maintenance of quiet. These things, contributing alike to the comfort of the patient and the chances of recovery from disease, are often, it must be allowed, passed over or too hastily dealt with, in the hurry of practice.

A chapter is devoted to:—

POINTS WHERE A PATIENT MAY JUDGE FOR HIMSELF.

1. The patient may almost always safely choose a temperature for himself; and inconvenience in most cases, positive harm in many, will be the effect of opposing that which he desires. His feeling here is rarely, if ever, that of theory; though too often contradicted by what is merely such. This rule, continues Dr. Holland, may be taken as applicable to all fevers, even to those of the exanthematous kind; where, with an eruption on the skin, the balance between the outer and inner surfaces of the body, and the risk of repression might seem, and actually are, of great importance. In whatever stage the eruption be, if the patient expressly seeks for a cooler atmosphere, or cooling application, they may be fully conceded to him, without fear of ill result; and under the guidance chiefly of his feelings as to the time during which their use may be continued.

We confess that we feel some doubts on this head. Take the case of erysipelas of the extremities. Cold is always, or almost always grateful—yet it is far from safe. Not that we would make a practice of disregarding the predilections of the patient with respect to temperature—far from it; we would only hesitate before we constituted his sensations the sole arbiter of its amount.

2. "In the majority of instances of actual illness, provided the real feeling of the patient can be ascertained, his desires as to food and drink may safely be complied with. Whatever be the physical causes of the relation (and they are yet beyond our research), the stomach itself is the best expounder of the general and more urgent wants of the system in this particular. But undoubtedly much care is needful that we be not deceived as to the state of the appetites, by what is merely habit or wrong impression on the part of the patient, or the effect of the solicitation of others. This class of sensations is much more nurtured out of the course of nature than are those which relate to the temperature of the body. The mind too becomes much more deeply engaged with them: and though in acute illness they are generally submitted again to the natural law, there are many lesser cases where enough remains of the leaven of habit to render every precaution needful. With such precautions, however, which every physician who can take schooling from experience will employ, the stomach of the patient

becomes a valuable guide,—whether it dictate abstinence from or recurrence to food,—whether much or little in quantity,—whether what is solid or liquid,—whether much drink or little,—whether things warm or cold,—whether sweet, acid, or saline,—whether bland or stimulating to the taste." 78.

We own that we are rather startled at this passage. It seems to be an extensive letter of credit upon nature. It is rather strange that our stomach should play us so false in health, and turn to be so valuable a monitor, so excellent a physician, so oracular an expounder of the wants of the system in disease. We confess our scepticism, both on rational grounds and from experience. We have now and then seen a strange whim of the stomach prove serviceable, but we have more frequently seen it do mischief. Indeed the most difficult job of the physician is, in many instances, to control the stomach and its appetites, which could only be indulged with positive mischief. Dr. Holland, however, goes the whole length of his argument.

"It is not wholly paradoxical to say that we are authorised to give greatest heed to the stomach, when it suggests some seeming extravagance of diet. It may be this is a mere depravation of the sense of taste; but frequently it expresses an actual need of the stomach, either in aid of its own functions; or indirectly, under the mysterious law just referred to, for the effecting of changes in the whole mass of blood. It is a good practical rule in such cases to withhold assent, till we find, after a certain lapse of time, that the same desire continues or strongly recurs; in which case it may generally be taken as an index of the fitness of the thing desired for the actual state of the organs. In the early stage of recovery from long gastric fevers, I recollect many curious instances of such contrariety to all rule being acquiesced in, with manifest good to the patient." 79.

Each man is guided by his own experience, and our's does not quite tally with our author's. No doubt that occasionally it is as he says; but sure we are that, in a great majority of instances, the stomach of the patient, or his expressed desire, whether the stomach play prompter or not, counsels strong food and drink and many heterogeneous things which the system would be all the worse for. This is more especially the case in convalescence. Few of us have not smarted from this very indiscretion on the stomach's part. It may be very true that our rules of diet are arbitrary, and that we often proscribe what might be useful in particular instances. But no one can deny that the articles our code permits are innocent, and that those it excludes are, to say the least, of dubious character. An impartial estimate will probably prefer a code of such a character, despotic though it possibly may be, to a laxity which is built on the whimsies of an invalid, and the capricious dictates of a falsely-educated stomach.

3. As regards, says our author, exertion of body, posture, continuance in bed, or otherwise, the sick may generally be allowed their own judgment, provided it is seen to be one dependent on bodily feelings alone. And so equally with respect to fresh air, methods of exercise, and times of repose. In these things, as on points of diet, suggestions, founded on careful notice of the feelings of the patient, and watchfulness as to the effect of the first trials, are all that is required from the physician; and more than this often does mischief.

He goes on to say, that as respects mental exertion during illness or convalescence, much more caution is needful. Here the patient is usually less

able to estimate his own power, and is more entirely at the discretion of those around him. The present condition of life among the higher classes produces as much of evil from excesses of moral and intellectual excitement, as from those of the stomach: and it is equally difficult to place watch and reasonable restraint upon them.

It appears to us that the mind and the stomach are pretty nearly in the same category, and that the patient is too often, in convalescence, led astray by the inclinations of both. In the middle and lower classes, however, the necessities and anxieties of life, the desire to retrieve lost time, and the apprehensions for a dependent family, are the hardest obstacles against which both patient and physician have to struggle. Mere inclination can generally be repressed by firmness, or, if indulged, it brings its punishment and is indulged no more. But what firmness can be exercised, or what punishment be effectual (unless indeed it be a final one) against the demands of positive necessity, felt with most especial hardship by many of the middle class? These are some of the most trying scenes the physician has to witness.

4. The prudent physician, concludes Dr. Holland, without sacrificing his science or authority, may often draw knowledge from his patient as to the fitness of particular medicines, or the fitness of employing medicines at all. Frequently it happens that the latter, at some period or other of his disorder, usually when convalescence has begun, expresses strongly his feeling that medicine will do no further good, and that his future progress is best left to nature alone. Provided it be clearly seen that this does not arise from any whim or perverseness of mind (and the feeling may exist wholly without such), the medical man is bound to give attention to it, as suggestion at least for his further treatment. And if continued and repeated, at a time when the urgent symptoms of disorder are past, it may for the most part be rightly acquiesced in,—certainly so far as to make trial of the effects of the change which, being of a negative kind, can rarely produce much evil, even if it fail of good.

Here we must take leave of Dr. Holland. It is impossible to lay down his book without an acquiescence in the decision of the public which has placed him in the first ranks amongst the practical physicians of the capital. Of urbane manners, with kindly feelings, observant at the bed-side, skilful in the use of remedies, and well-read in the medical literature of former days and of the present, Dr. Holland is well qualified for the position that he occupies, and is an example that young practitioners may safely imitate. Let us add, that we have every reason to believe that his mind is not warped by coterie feelings and class prejudices, that his bearing towards his brethren is fair and open, and that his candid mind, instructed by liberal reading and polished by society, is willing to allow their meed of merit to all, and does not confound competitors with rivals.

Of all that we have said the present work is the reflection, and none can peruse it without a large measure of instruction, and even more of respect for its author.

FORENSIC MEDICINE.—DURATION OF PREGNANCY.

CASE OF THE REV. FERGUS JARDINE.

RECORD OF THE PROCEEDINGS IN THE REFERENCE BY THE SYNOD OF FIFE, TO THE VENERABLE THE GENERAL ASSEMBLY OF THE CHURCH OF SCOTLAND, IN MAY 1839, OF THE CASE OF THE PARISHIONERS OF KINGHORN against THE REVEREND FERGUS JARDINE. Edinburgh, 1839. pp. 178.

THE above document having come into our hands through the kindness of a reverend member of the venerable assembly by which final judgment has been awarded in this interesting case, we gladly avail ourselves of the opportunity to lay the case, with the evidence and judgment, before the medical public.

In doing so, we shall not anticipate the conclusions which our readers may draw from all the facts stated, by any prefatory observations of our own, upon a subject confessedly one of the most difficult with which the medical jurist has to do.

I.—LEGAL HISTORY OF THE CASE.

On the 3rd of March, 1835, the Rev. Fergus Jardine, minister of Kinghorn, was married to Janet, daughter of the Rev. Dr. Martin, minister of Kirkcaldy. On the 24th of August following, the lady was delivered of a living daughter, whose existence was protracted till the 20th of March, 1836, when she expired.

At a meeting of the Presbytery of Kirkcaldy, the 2nd of September, 1835, Dr. Martin, the infant's maternal grandfather, stated to the members "that his daughter, Mrs. Jardine, had brought forth a premature child, within the sixth month from the date of their marriage; and as that child, though both feeble and extraordinarily diminutive, still lived, he had been informed that reports most injurious to the character of both parents, and most prejudicial to the reputation and usefulness of Mr. Jardine in particular, were in general circulation; that it was therefore essential to the character of the Presbytery itself, as well as of Mr. and Mrs. Jardine, that that matter should be inquired into, and that the opinion of some competent professional man should be taken, whether the appearance and state of that child was such as to be consistent with its being the legitimate fruit of the marriage of its parents. He stated, that Dr. Reid, of Kirkcaldy, by whom Mrs. Jardine had been delivered, was willing to declare to the Presbytery all that he knew of the case, but that he felt difficulted to pronounce an opinion upon it, because it was one to which nothing similar had ever occurred to him before; that besides, it was not probable that any opinion given by Dr. Reid would be satisfactory to the public, however favourable it might be, on account of his personal connexion with the case; that it would be expedient that one of the most distinguished practitioners in puerperal cases should be requested to visit and inspect the child, to inquire into all the circumstances which he might deem essential, and to report his opinion to the Presbytery;

that it was more desirable that this should be done by the authority and at the request of the Presbytery, than at that of Mr. Jardine himself.

Mr. Jardine made a statement to the same effect, and mentioned, that he had some reason to think that the injurious *fama* so confidently circulated, had, in a great measure, taken its rise from the child of Mrs. Brodie, Mrs. Jardine's sister, which was eight weeks old, having been seen by some persons in the arms of a servant at the manse of Kinghorn, where Mrs. Brodie had arrived on the day of Mrs. Jardine's delivery, and where she had remained three days, to afford the nourishment of her milk to the prematurely born infant; and that those persons, being ignorant that there was any other child in the house, had supposed Mrs. Brodie's child to be her sister's, and, consequently, a child, not only fully mature, but remarkably well-grown. He joined in requesting the meeting to take steps for the investigation of the case, that an end might be put to reports at once so painful to him, and so hurtful to his usefulness as a minister.

The meeting unanimously concurred in the expediency of these suggestions, and authorized the Moderator to write to Dr. Hamilton, Professor of Midwifery in the University of Edinburgh; and, if he should decline coming to Fife, or should be otherwise engaged, to Dr. Thatcher, Professor of Midwifery to the Royal College of Surgeons in the same city, requesting him to inquire into, and report upon, the case.

The said letter was written forthwith, and transmitted by the post of the same evening. On the 4th, Dr. J. Hamilton, jun. replied by two letters, in the first of which, he regretted his inability, because of prior engagements, to leave Edinburgh for two hours;—stated his experience to have been, that no infant was *reared to maturity*, who was born earlier than seven calendar months, although he had "repeatedly seen infants born within a week of six calendar months, live for days, swallow readily, and pass urine and fæces." One of whom he could swear to having lived completely five days.

Two cases are cited in his letters from other authorities, one Dr. Rodman's, of Paisley, published in the 11th volume of the Edinburgh Medical and Surgical Journal, of an infant born (of parents who had had a family, and where there could be no inducement to mistake or misrepresent) nineteen weeks after conception, and reared to a certain age. The other, that of the Rev. T. Elder, minister of Whitehorn, where the infant born was so within five months after marriage, and lived for some months at least. The father, here, had been deposed in consequence, but was subsequently reinstated in his clerical status, partly on account of his personal character, and partly on the faith of a statement made by Dr. Pitcairn, then, perhaps, equal in celebrity to any physician in Europe, and by Drs. Preston and Drummond, that it was consistent with their observation and experience that "a child born in the beginning of the *sixth* lunar month, may be alive and continue in life."

Dr. Hamilton not undertaking the inquiry, Dr. Thatcher was instantly written to, and on the 12th instant he examined the child, and took the evidence of Dr. Reid the accoucheur; Mrs. Robertson, who had been present at the birth; and the nurse who had had charge of the child from birth up to that date.

On the 15th of September the Presbytery met, to consider the above correspondence, and the result of the medical examination. A certificate and a note from Dr. Thatcher, were also laid before it. The certificate simply

expressing his opinion that the child was "still of the premature character, and must have been *decidedly more so, in every respect, at birth.*" An opinion formed upon the history of the case,—its (the child's) augmented development since birth, and every point indicative of immaturity. The note further stated, that, from a full consideration of the evidence and other points, the Doctor felt bound to report that this child was "among the '*cas rares*' which occur of being prematurely born, and of *vitality being afterward extended by the most extreme care and attention.*"

This certificate and note, with the letters of Dr. Hamilton, removed, in the judgment of several members, all suspicion of immoral conduct from Mr. Jardine, and all cause for farther inquiry. To others it appeared desirable that the declaration of Dr. Thatcher should have been more explicit in regard to the probability or possibility of the child having been procreated within the time of her father's marriage; and he, being again written to, for a more explicit answer on this point, replied in the affirmative.

On the 23d of September, his second certificate was laid before the Presbytery, which, after deliberation, unanimously agreed that there was no ground to charge Mr. Jardine with the criminality alleged against him.

Here the matter might have terminated, but for the malevolent and persecuting spirit of a few dissatisfied men, parishioners of Kinghorn, but neither ministers nor members of Presbytery, who, under the name of petitioners, had previously requested the Presbytery to hold a "visitation" at Kinghorn, before coming to any decision, and who now protested against the finding, and appealed to the Synod of Fife.

The *animus* of the petitioners is evident from the "reasons of appeal" lodged by them, and which we give seriatim. They are as follow:—

"1. Because the petition for the parishioners of Kinghorn ought to have been considered and decided upon before proceeding to give any determination on the matter at issue. 2. Because, after receiving the petition of the parishioners of Kinghorn, praying the Presbytery to make a Presbyterial visitation of the parish, &c., before proceeding to decide in the case, and resolving to take it into consideration at the next ordinary meeting; it was irregular and incompetent in the pro re nater meeting to come to any determination on the merits of the case, whereby the petition was virtually refused. 3. Because the Presbytery proceeded to determine upon secondary evidence, brought from a distance, when primary evidence could have been obtained on the spot. 4. Because the medical evidence, on which the Presbytery decided, was not given on soul and conscience: and, in particular, because Dr. Thatcher has not acted strictly in his professional capacity, but, before entering upon the requisite investigation, stated, that he trusted it would be in his power satisfactorily and happily to arrange the case. 5. Because the evidence of Dr. Hamilton, jun., who was first applied to, goes to establish, that a child born before the expiry of seven calendar months from conception, cannot live.

6. Because the *fama clamosa* mentioned in the petition having special reference to the question before the Presbytery, it ought to have been inquired into before coming to any determination."

The answers for the Presbytery of Kirkcaldy, to the "*reasons*" of those unreasonable men who, under the guise of petitioners, were thus manifesting the rancour of persecutors, are grave, dignified, and so admirable that we cannot forbear giving them a far wider circulation than they would otherwise obtain.

"1. To the first of those reasons it may be enough to reply, that it merely asserts that the members of the Presbytery convened at the said meeting, instead of acting according to their own judgment, ought to have been guided by that of the petitioners, an obligation to which, they are not disposed to admit.

2. To the second, it needs only to be answered, that it assumes that, because a petition was presented to the meeting, and received, so as to be laid on the table, and to be, if necessary, the subject of future consideration, therefore the Presbytery were bound forthwith to grant the whole prayer of it. A petition may be received and laid on the table, from respect to those by whom it is presented, while yet its prayer may be refused in part or altogether. To say otherwise were just to say, that so soon as a petition is laid before a Presbytery, and is allowed by them to lie on their table, they are thenceforward to have no mind of their own, or power to act, as to any matter referred to in such petition. As to the irregularity or incompetency alleged in this reason, it is replied, that if it was competent for the Presbytery, at such a meeting, to receive the petition in question, it was without doubt equally competent for them to dispose of it as they thought proper. But though it is obviously altogether needless to say more in answer to these reasons the members of the Presbytery may further observe, that after being at considerable pains to obtain the best medical evidence which they could procure, that evidence which alone could be satisfactory in such a case, they had met to consider and determine upon it. And where could be the reason or justice of refusing to decide upon that evidence, because a petition, never presented till then, stated that certain reports had been in circulation, reports, too, of the tenor of which nothing was specified. Several members of Presbytery well knew that very injurious reports had been in circulation. That was the cause of their repeated meetings p. r. n. and they knew that the facts of the premature birth and continued life of Mr. Jardine's child were the basis of these reports. And now, when the Presbytery had obtained that evidence, by which alone a satisfactory judgment could be formed in regard to these facts, they are told by the petitioners that they are not to judge of that evidence. Whatever the reports of which the petitioners speak may be, they cannot affect the evidence in question. If they have other evidence to bring, they are at perfect liberty to produce it, and if relevant, it will be judged of. The deliverance of the meeting p. r. n. appealed from, is on the medical evidence before it, and on no other, and that evidence, it is clear that no examination into the alleged reports could alter.

3. As to the complaint applied in the third reason, that the Presbytery determined upon secondary and distant evidence, when they had primary evidence on the spot,—if the Presbytery understand those expressions, it is that they preferred employing Dr. Thatcher in examining Dr. Reid and others, and in judging of their evidence, to examining them and judging of their evidence themselves. They were not competent either to make the examination or to judge of the evidence obtained. Though they had taken all the evidence which Dr. Reid and others could give, they must, after all, have submitted to the judgment of some such person as Dr. Thatcher; and it was manifestly far better that he, who was so much more competent to determine what questions ought to be put, and what opinion to form from the replies, than they could be, should examine for himself. And in Dr. Thatcher's certificate and notes, they have the result of Dr. Reid's evidence, as given by him 'on soul and conscience, in truth,' as well as of the evidence of other the witnesses. Dr. Thatcher's evidence, moreover, was evidence '*on the spot*,' for he came to the manse of Kinghorn personally, examined the condition both of the infant and its mother, and there also conversed at length with Dr. Reid, and the other witnesses mentioned in his note.

4. Of the fourth reason, it is not easy to speak without some feeling of indignation. However guarded in its expression, it has no meaning, if it do not imply an insinuation against the integrity of Dr. Thatcher; that he had acted as a

partisan, and not as a man of truth and honour. They object that he has not used the asseveration 'on soul and conscience.' But these words do not differ in import from those which the petitioners or their agents know that he did use; for they were in possession of full copies of his communications with the moderator and clerk of the Presbytery; in the first of which, that of the 7th Sept., he says, 'I shall be most happy, *conscientiously and scientifically*, to investigate the case you mention,' and in another of which, his note of the 12th September, he states, 'I considered it my duty to approach this investigation in the *most conscientious and guarded manner!*' Yet, with these words before them, they insinuate that he did not act with a regard to conscience. But the petitioners, or the person who drew out the reasons given in their name, insinuate farther, that a proof of partiality is found in the hope expressed by the Doctor, where he says, 'I trust I shall be able satisfactorily and happily to arrange this case.' Now as to these words, it is to be observed, that they express nothing as to the nature of the conclusion at which he hoped to arrive, farther than that he trusted it would be satisfactory, we may suppose, to those who consulted him, and happy, in so far perhaps, as it would enable them to decide without hesitation. But suppose it did express, what certainly it does not, a trust, or even a wish, that the issue might be happy for Mr. Jardine, the Presbytery ask, how else could any good man have expressed himself, if he chose to express any hope on the subject; any man who has a regard to the interests of morality and religion, must be aware of the injury likely to be sustained by those interests, should a minister of the gospel be proved guilty of a crime imputed to Mr. Jardine, and the Doctor believing him innocent so long as he knew no cause to hold him guilty, most naturally expressed the hope referred to. He must have been both a bad and an uncharitable man, had he thought or spoken otherwise; and is it to be insinuated, that, because he did not, a man of his eminent reputation, and conspicuous situation, had wilfully violated his honour, and cast away his character.

5. What is affirmed in the fifth reason, as to what is termed Dr. Hamilton's evidence, *is not true*. The Doctor takes care to limit his statement to what had fallen under his own observation, and to prevent the unfavourable conclusion which might be drawn from it, he subjoins the remarkable case detailed by Dr. Rodman. And, to what was it owing, that, in the evening of the same day, he wrote another letter, communicating the recorded opinion of Drs. Pitcairn, Preston, and Drummond? to what but his anxiety, lest what he had given as the result of his own observations in practice, should lead to an inculpation of Mr. Jardine, which he did not intend? The case of Mr. J's child is undoubtedly a rare one, *un cas rare*, as it is expressed by Dr. Thatcher, though by no means unprecedented. And the Presbytery affirm, that even had there been nothing before them but the letters of Dr. Hamilton, these, taken in connection with the weight and appearance of the child, and other circumstances, would have made it imperative on them to acquit their brother of the criminality with which he had been charged; for, if it be proved, in but a single instance, that such a case has been, it is nothing more than justice to parties, hitherto unimpeached, to admit that their's may be similar. How much more, then, when Professor Thatcher declares, that he considers the *fama* on this circumstance, against the minister of Kinghorn, as altogether groundless.

6. As to the sixth reason, it is sufficient to remark, that the members of Presbytery surely were not ignorant that the *rumours and matters* referred to in the petition, (for which expression the words *fama clamosa* are substituted in this reason), had respect to the birth of Mr. Jardine's child. Why else these repeated meetings p. r. n.? Why else their inquiries?"

The Synod very properly dismissed the appeal, approved of the Presbytery's "diligence and finding," and remitted the matter "to be considered

by the Presbytery at their next ordinary meeting, it being understood, in terms of their finding, that the petitioners should be then heard, if they think proper, upon their petition."

On the 28th of October the Presbytery again met. Dr. Martin, the father of Mrs. Jardine, declined to act as clerk, and both he and Mr. Jardine declined sitting in their capacity of judges, the latter sisting himself as a party at the bar. Two motions were then put, the 1st, That in compliance with the wishes of the petitioners, a presbyterial visitation should be held at Kinghorn. The 2nd, that the prayer of the petitioners for a visitation be refused, but that it be left to them to serve Mr. Jardine with a libel, if they shall see cause. The first was carried by the casting vote of the moderator, Dr. Martin having refused to vote.

Against this finding, the Rev. plaintiff appealed to the Synod, alleging as his reasons,—1st. That no grounds were laid in the petition calling for or justifying the proposed visitation of his parish. 2ndly. That it was contrary to ecclesiastical law and practice, to subject a minister and his parish to presbyterial interference, where the former is merely accused of a single and specific offence. 3rdly. That such visitation would retard rather than forward the inquiry. 4thly. That the sentence appealed from, *in effect* enabled the petitioners "to lead evidence against the appellant, on a criminal charge, which, if well founded, would infer his deposition before any libel has been raised against him, and before he has been in any way made aware either of the allegations in detail, which are to form the subject of proof, or of the witnesses by whom it is proposed to establish them." 5thly. That the Presbytery having found, and the Synod affirmed their finding, after due enquiry, that there was no ground to charge him with the criminality alleged against him, "it is incompetent, unconstitutional and unjust, to entertain farther procedure in the matter in any other form than by libel, to which the petitioners have it in their power to resort at any time." And 6thly. That the deliverance of the presbytery ought to have been a simple refusal of the petition, reserving to the petitioners to libel the appellant if they should see cause, or be so advised.

The Synod met on the 12th of April, 1836, and "unanimously agreed to sustain the appeal, reverse the sentence of the Presbytery of Kirkcaldy, appointing a presbyterial visitation of the parish of Kinghorn. Remit the case to the Presbytery, with instructions to make the fullest investigation into the grounds of the *fama* against the minister of Kinghorn, by summoning witnesses, and taking a precognition in the usual form, allowing the minister and the petitioners to be fully heard, and to proceed by libel, if they shall see cause, according to the rules of the church." The appellant and the Presbytery acquiesced in this judgment—but the petitioners made a show of more vexatious litigation by an appeal to the ensuing General Assembly, which appeal, however, they failed to prosecute. And on the 11th and 16th of the following May the Presbytery resumed their sittings on the case; at the last of these meetings, a precognition of witnesses was determined on, and a committee of the whole members of Presbytery appointed to conduct it. On the 5th of July, at the request of Mr. Jardine, a limit was set to the time for precognoscing witnesses against him. At another meeting, on the 3rd of August, the impudent, barefaced, and indecent request was preferred by a Mr. Thomas Barclay, "in his own name, and in

that of the other petitioners," "that Mr. and Mrs. Jardine, the parties charged with the guilt alleged in the petition, should be judicially examined, and their declarations taken." The request was very properly refused, whereupon Mr. Thomas Barclay protested and appealed to the ensuing Synod —which met on the 11th of October, dismissed the appeal, and affirmed the sentence of the Presbytery. The judgment of the Synod was as unpalateable to these self-constituted conservators of public morals, as the previous sentence of Presbytery, and they appealed from it to the ultimatum of the General Assembly. And, on the 30th of May, 1837, accordingly, two years after the marriage, and eighteen months from the commencement of this vexatious and harassing inquiry, the case came before the Assembly on the preliminary point thus raised. That venerable body, however, dismissed the appeal, and remitted the matter to the Presbytery of Kirkcaldy with instructions to sist all further procedure, and to dismiss the cause, "unless a libel shall be laid on the table of the Presbytery by the first day of the following September."

This decisive style, reduced the petitioners to the alternative of framing a libel against their minister, or abandoning the persecution to which they were subjecting him. They made their election of the former—and proposed to prove their allegations by not less than 38 witnesses, including Drs. James Hamilton, Thomas Stuart Trail, Wm. Campbell, and Peter Fairbairne, and Surgeons Reid, Storrer, and Zeigler. The medical evidence both pro and con we shall presently analyse, but for the present waive the consideration in it, in order to complete the legal history of the proceeding of this case.

On the 1st of Sept. 1837, the "libel" was laid on the table of the Presbytery, indicting and accusing the Rev. Fergus Jardine, of antenuptial fornication, alleged to have been committed by him in Dec. 1834, "and on each, or one or other of the first two days of the month of March, 1835; and containing several allegations in confirmation of the same. On the 8th of September the Presbytery resolved to serve the Rev. Gent. with said libel, and the list of witnesses, and to cite him to compear before an ordinary meeting of Presbytery, on the 4th of October, on which day he appeared for himself and gave in written answers to the libel." "After deliberation the said libel was found relevant Dr. Laird, Mr. Brewster, and Mr. Sieveright were appointed to withdraw with Mr. Jardine, for the purpose of dealing with him in *foro conscientiæ*, concerning the charges brought against him by the libellers. Dr. Laird, as oldest member of the committee appointed to converse with Mr. Jardine, now reported, that having solemnly asked the accused, as in the presence of God, and in the view of the great day of Judgment, whether he had been guilty of one or all of the offences libelled? the said committee were answered by Mr. Jardine, that, bearing in mind those awful considerations, he declared his entire innocence of one and all of those charges."

On the 30th the Presbytery again met for probation—when Mr. Deas, the advocate for the libellers, requested that, as the present matter depended to a considerable extent upon medical evidence, the medical evidence from Edinburgh might be present during the whole of the evidence, except of two witnesses, in order that they might give their opinion. This was objected to by the counsel for the defender, except when the evidence bore on

the medical question of gestation. The request was allowed by the Presbytery, with a limitation that they be made to retire whenever the Persbytery may deem it necessary.

The examination of witnesses for the prosecution was continued for five days, when objection was taken by the defender's counsel to Dr. Campbell, as a disqualified and inadmissible witness, but repelled by the Presbytery. Whereupon the council appealed to the Synod, and the Presbytery adjourned to the 18th of November, when they again met, and instructed two of their members to answer the appeal—their answers were not, however, presented until the 15th of the following March, and were then introduced with the expression of an opinion that the appeal had been only made to effect delay; and couched in such strong terms, that the appeal was departed from, and on the following day the Doctor's examination was proceeded with. On the 17th the pursuers closed their case, and, time being allowed the defenders to prepare lists of witnesses, the case for the defence was ordered to come on on the 1st of May. Seventy-nine witnesses were cited on behalf of the defender, including Drs. Thatchers, Aitkin, Christison, M'Whirter, Combe, Cummin, Alison, Reid, and Robert Collins, of Edinburgh, Glasgow, and Dublin. Drs. Dalen of Rotterdam; Pignal and Saintone, of Paris; Chatron, of Turin; Sinibald, of Rome; and T. B. Fabbin, and Cini Annibal of Boulogne. On the 3d of May the Presbytery adjourned to the 4th of June, and from that date to the 24th, after which a further adjournment took place to the 6th of November, and on the following day sentence was passed, finding the charge of fornication *not proven*, and further, "that the testimony of the several witnesses, both with respect to matters of fact, viz. the appearance of the child at birth, &c., and also with respect to the opinions of medical men, regarding the viability of such a premature child as the child in question is said to be, is of such an opposite and contradictory nature, that the Presbytery, with their present light, have great difficulty in coming to any decision on these points. The Presbytery, therefore, agreeably to a common maxim of law: Satius est impunitum relinqui facinus nocentis quam innocentum damnari, find the libel not proven." Against this deliverance both parties protested and appealed to the next meeting of the Provincial Synod of Fife.

We subjoin the reasons of appeal of both parties with the answers of the the Presbytery thereto, so arranged as to present the whole to our readers at one view.

Pursuers' Reasons of appeal.	Answers for the Presbytery of Kirkcaldy, 1838.
"1. Because the evidence adduced was such as to leave no reasonable doubt that a viable child cannot be produced at so short a period of gestation as five calender months and twenty-one days, being the alleged period of gestation of the child mentioned in the libel.	"The first reason 'is a simple assertion, and must be met with a counter assertion, that the evidence is not such, &c. or by going into the whole evidence of both sides of the case.
2. Because, at all events, there could be no reasonable doubt on the evi-	The same answer applies to the second reason, which respects the appear-

dence adduced, and having regard to the appearances of the child, the treatment it received, and the period it lived: that the child in question was born after a longer period of gestation than that just mentioned, being the period which elapsed between the date of Mr. Jardine's marriage, and the birth of the child.

ances and treatment of the child in question.

3. Because, supposing it to be established that a child was begotten before marriage, it is clear beyond all doubt that Mr. Jardine was the father of the child.

The third reason would be a good ground of appeal, provided the fact which it supposes to be established was well founded.

DEFENDER'S REASONS OF APPEAL.

Because the prosecutors having failed to establish any part of the libel, the same ought to have been found not proven, and simpliciter dismissed,—the answers or defence sustained, and the appellant absolved from the whole conclusions against him." 152.

The single reason here adduced by the defender is one in form rather than in substance. He says, 'the libel ought to have been found not proven, and simpliciter dismissed, &c.' The libel has been found *not proven*, and consequently the appellant is absolved from all the conclusions of the libel in fact, if not in form." 152.

The Provincial Synod of Fife met on the 9th of April in the present year and agreed, with the consent of both parties, to refer the whole cause simpliciter to the ensuing General Assembly.

The Assembly met in May; the result of the reference to them was the termination of Mr. Jardine's sufferings, and the completion of his triumph. They dismissed the appeal of his Prosecutors, sustained his own appeal, and amended the sentence of the Presbytery by finding the libel not proven, and absolving the accused minister from all the conclusions against him.

II.—MEDICAL HISTORY OF THE CASE.

Having traced the history of the proceedings in this case from the birth of the child to the acquittal, long after its decease, of its parents of all criminality in its production, we proceed to exhibit the several features of its medical history, as they are presented to us on the testimony of eye-witnesses.

According to the accoucheur, who, however, did not particularly examine it, the head of the child at birth was not large in proportion to the body. The posterior fontanelle and sagittal suture were considerably open. And, during labour, the parietal bones over-lapped. The eyes were partially opened and particularly small. Its general appearance was such as he considered usual in cases of premature birth. He failed to observe whether there was hair on the head or not—what was the colour of the skin—what the situation of the navel,—or what the state of the genitals.

According to one of the witnesses into whose hands the child came out of the hands of the accoucheur, it cried immediately, had hair on its head; the

clear and natural skin of a full-born child, without wrinkles or folds; nails on its fingers; voided its urine immediately; and, though not at once, took the breast within 24 hours. But, except in the assertion that it was the smallest child she had ever seen, her testimony was contradicted by every other witness to the facts.

Mrs. Martin, the infant's grandmother, who received the child for the purpose of washing and sorting it, had never beheld such an object before! According to her—its head and shoulders were tolerably formed, but from the back downwards to the lower extremities it might be said to have no form at all, there seemed to be no joints at the ankles, and no separation whatever between the lower limbs and the feet. In particular, it had no heels, but the limbs and feet were continuous and ran out like sticks.

Its colour was reddish and unnatural. Its skin generally wrinkled.

Another of the witnesses described its face as being shrivelled like a piece of chamois leather, and covered with a silky sort of down, like mould—this was after it had been washed—the skin, as generally wrinkled, and not full-filled.

A third alleged that its skin was all wrinkled together, of an indescribable brownish, reddish, unnatural colour.

A fourth, the wet-nurse, deposed that its skin was of a dark-colour, very like an old person's, all wrinkled and not well filled, with a down over the body. According to this witness it had the gum upon it at first and that continued for three weeks. But over the genitals the skin was wholly wanting.

The testimony to the state of the nails is somewhat conflicting. Mrs. Robertson and the husband of Mrs. Brodie affirming, and Mrs. Hill denying, their presence; while Mrs. Martin, Mrs. Brodie and Miss Martin, described what the two former witnesses took for nails, as some fleshy-like thing upon the fingers but not upon the toes, corresponding to nails in appearance, but differing in reality, being a sort of white skin, quite soft although harder than the skin on the other parts of the fingers, and generally ragged around the edges.

Shortly after birth it gave a kind of cry, but not at all that of an ordinary child, it was so very feeble. In the words of another witness, Mrs. Jardine's unmarried sister, its cry was a weak, squeeking, peeping cry, not at all the cry of a child come to its full time at birth. Another sister, herself married, had no remembrance of having heard it cry at all, but said it "moaned incessantly," "which made her think every moment it would die." While a third, and altogether unexceptionable witness, Mrs. Hill, the child's wet-nurse, characterized its cry as unlike that of any other child, "a sort of *wurning* unnatural cry."

To return to the testimony of the maternal grandmother, its breathing, not only upon birth, but until death, was never like another child. It would take a breath or two, then always make a pause as it were taking a rest before it could breathe again, and appeared to have a difficulty in breathing which continued while it lived. Mrs. Brodie, her daughter, also deposed to the difficulty of respiration; as did its nurse, Mrs. Hill, who said that even after it began to notice, "it had a way of putting down its head, as if it were like to be choked with something about its breast."

Mrs. Martin was the first person who attempted to give the child any food; putting a little sugar and water upon its lips, but it did not swallow.

In the course of the day (of its birth) its future nurse was brought to the Manse, and her breast offered to the child, but it would not suck. Mrs. Hill then milked a little of her milk which was endeavoured to be dropped into the child's mouth from a spoon. Some of it might have gone down, but no effort was made to get it to swallow for fear of choking it. On the evening of the same day, Mrs. Brodie arrived at the Manse with her child, a month old, at the breast, and offered her breast to her sister's infant, but it could not suck. Mrs. Brodie, however, thought it swallowed some of the milk dropped from her breast into its mouth; the wet-nurse swore it was several weeks after birth before it took the breast and sucked, and not then like another baby.

Its bowels were never known to be moved without medicine but three times in the whole course of its life, although it appears to have voided its urine at some one part or other of the day on which it was born.

According to its nurse it slept very little, and scarcely ever more than ten minutes at a time.

The grandmother thought the child's eyes opened shortly after it was born, but solemnly declared her belief that it was born blind, the strongest light, both of the sun and of candles, when applied to its eyes for the purpose of ascertaining if it could see, "having produced no more effect upon them than it would have done upon the table."

According to its maiden aunt, Miss Anne Martin, "light produced no effect upon its eyes, until about three weeks after its birth; the impression was conveyed to the mind of its married aunt, Mrs. Brodie, that it did not see, because bright light produced no effect on the child's eyes.

The nurse went the length even of stating that it was three months old before it began to notice. "The eyes were open at times, but she thought it could not see from light producing no effect upon the eyes, and from its taking no notice when she moved her hands back and forwards in front of them."

The child was born in August, and until the following October, when Miss Martin left the Manse, it appeared to her to be almost constantly in a state of suffering and distress—moaning very much, and requiring medicine daily or every alternate day to produce motion in its bowels. And when she saw it, shortly before its death, it was still very weak and feeble, and "she particularly observed that while it could grasp it could not hold anything in its hands."

The first time the nurse saw it on its birth-day, it was very sick, and vomited all the time she was in the room. While under her care, which was day and night for four weeks, it was much pained and suffered greatly. And while it needed medicine constantly, that was with difficulty administered for fear of choking it. She was sometimes up all night with it, and could not lay it down from its being unwell.

For the first three months its growth appeared to be arrested or nearly so —and even after that, although it advanced gradually it did so but slowly.

An old lady named Hamilton, saw it a week after its birth, and had never seen a human being in life so small as it appeared to be. Its face was so much wrinkled that it was miserable to behold it. And its fingers were so very small that they seemed to her to be like knitting needles. She adds, "when the child was some months old, it became a very fine one."

James Adamson, overseer at Balmuto, and one of the elders of the parish of Kinghorn, who saw the child for the first time at its baptism, and some weeks subsequently, besides being present at its funeral—had never seen so small a child in his life; and when he had it in his arms felt glad to get clear of it, "because it was too frail for his handling." Its eyes, by his statement, were "hollow and dull in the head." It had very little movement, and never laughed. The coffin in which it was laid appeared to him to be a great deal smaller than those in which his own still-born children had been buried.

Dr. Thatcher, who saw the child 19 days after its birth, at the request of the Presbytery, for the express purpose of deciding upon the points at issue, neither weighed nor measured it, in consequence of its age from birth, and because he heard it had been previously found to weigh scarcely four pounds, was of opinion that it measured about 12 or 13 inches; "but, from the report of the nurse, it had assumed a firmer character since its birth, and was a different child in character and appearance than to what he should have found it, had he seen it at birth or shortly afterwards; but the general appearances in other respects, as well as in the last stated, confirmed the opinions and conclusions of its being a most decidedly premature child, conformable to the specific report already drawn up—the other appearances alluded to, were smallness of head, with roundness, divarication or separation of suture, small features generally, small arms and legs, nails developing and small, small downy hair, and general appearance of trunk feeble—the sexual organs, especially the nymphæ, more projecting; and the child appearing like one who had struggled with weakness, and was now commencing to improve."

Mr. Robert Menzies, factor and cashier for the Earl of Elgin, Fife, himself the father of eleven children, and upwards of fifty years of age, saw the child about two months after its birth. "It was a very 'smally' child in size, and he did not remember to have seen one at that age so small. He noticed particularly the smallness of its face, its wrists and hands, being all that was exposed; he never saw such small wrists, *they seemed to him not thicker than his little finger.*"

Mrs. Anne Irvine, or Boswell, Dowager of Balmuto, widow of the late Lord Balmuto, with her daughter, visited the manse at Kinghorn nine weeks after the birth of the child, and there saw it, when, from its extreme delicacy, she would have had great hesitation in handling it. It was both very small and had a great heaving at the breast, with quick difficult respiration.

Mrs. Jane Melville or Cook, of Kirkcaldy, saw the child in question three months and three weeks after its birth, and certainly thought it from its appearance a premature child, it was so very small—and, altogether, its skin and body seemed unlike those of any other child. The skin was not so full as it ought to be—but darker in colour, and to appearance like that of an old person. There was no hair on its head. And its heels seemed to her very imperfectly formed.

She had never seen a child born after less than six months' gestation, but has seen twins born in the seventh month, and the only difference between this child and them, was, that they died in a few hours, and it was certainly livelier.

The size of the child after death appears to have been smaller than the ordinary size of other children at their births—and that after a life of suffering protracted for several months. Its weight was not ascertained, certainly, by any of those witnesses, but guessed by more than one not to have exceeded three pounds, with its clothes on.

The conclusion of all the witnesses already specified, with the one only exception of Mrs. Robertson, herself the wife of one of the petitioners; or, in plain English, accusers; or, in plainer Scotch, libellers of the child's father, was that it was certainly the fruit of wedlock, lawfully begotten, and prematurely born. Mrs. Jardine's mother gives an additional reason for coming to such a conclusion, founded upon a fact of which she alone could be cognizant. "She had no doubt, from all she saw and observed at the time, that the child was born prematurely, and begotten in wedlock. It was, particularly in regard to the extremities, just as nothing, compared in size to its own mother, when born. *Mrs. Jardine herself having been a seven months' child.* It was so small in comparison."

The corpse of the infant was examined after its death by Dr. Reid, and Mr. Storrer of Kirkcaldy, within a day or two of its death. The following were the post mortem appearances:—*Thorax.* Lungs, flabby in their texture, and considerably engorged. The heart, smaller in size than the examiners thought it ought to have been at that particular age.—*Abdomen.* All the viscera sound.—*Head.* Not examined.

The legal and medical history of the case being before our readers, we have only to add the facts and opinions of the medical witnesses.

III. FACTS ADDUCED BY THE MEDICAL WITNESSES IN CORROBORATION OF THEIR OPINIONS.

1. By Dr. ALEX. REID.—The size and appearance of the child at birth, being those of prematurity.

2. Mr. STORRER.—The case of another child, from his own practice, born at the end of six months' gestation, and which lived eight hours. It was very weakly, swallowed nothing, moaned a good deal, but did not cry, the eyes were open, the skin soft and wrinkled, nails imperfectly formed. It was neither weighed nor measured, but was very small. *The mother had previously had a child, but one still-born, to the same husband.*

3. Professor HAMILTON.—His *negative experience* of 49 years' practice as an accoucheur—and his *positive unbelief* of every other practitioner whose experience differs from his own.

4. Dr. CAMPBELL.—No such production as a viable child, born at less than seven calendar months' gestation, being consistent with his *experience*, during a period of 22 years' practice; or with his *knowledge*, embracing as that does, either directly or indirectly, upwards of 8000 deliveries.

Has, nevertheless, seen a child of four months and a half live a few minutes; a child of six months' gestation merely gasp when born, and die immediately; another live twenty minutes, and another three days.

5. Mr. ZIEGLER.—His *negative* experience of five years' practice as an accoucheur. His *positive* ignorance of any sufficiently authenticated case of a viable child born at less than seven calendar months' gestation.

6. Dr. Fairbairn.—The experience of 19 years; and acquaintance with 2,000 midwifery cases, including "a good many" immature children.

7. Professor Thatcher.—Personal experience as an accoucheur for thirty-two years, and in about 10,000 cases of midwifery. Personal examinations of the infant in question, of the attendant accoucheur, of the recipient witness to its birth, and of its nurse. Cases in his own practice, of children from after a shorter period of gestation than seven months, and living—especially "three remarkable cases of children (in one year, 1835,) born decidedly before the completion of seven months of uterogestation or pregnancy," and alive May 3rd, 1838. These children were born, on or about the sixth month—bearing the following characters of immaturity, viz.:—diminutive developement; small head and extremities; nails slightly developed; little hair, and that little downy; "a peculiarly corrugated brow when crying;" the face, that denominated by the French, *le petit viellard;* generally whining and discontented; inability or but partial ability to suck; requiring to be fed very slowly and gradually; *a peculiar appearance of the eye, in regard to the membrana pupillaris, which in these cases was just disappearing;* length and weight correspondingly short and small, the former being from twelve to fourteen inches, the latter from three pounds two ounces to three pounds five ounces; sexual organs peculiar in appearance, the nymphæ in the females being fuller and more protuberant, and the testes of a male beginning to descend; affected by icterus, or "yellow gum," as jaundice in young children is popularly denominated.

The mothers of all three children were married—living with their husbands—and of the most respectable and undeniable character. One case was that of a second child—another, that of a second or third child—and the third was born of a mother who had had several children.

8. Mr. Millar.—A case occuring in his own practice, of a female child where he had every reason to believe that the gestation did not exceed six calendar months; and was alive at the time of his deposition, a month after the birth. The parents had been known to him as a married couple for at least five or six years; and had had other children.

9. Professor Buchanan.—One case of birth, six calendar months and three days from the last appearance of the menstrual discharge; the child survived, and when Dr. B. left America thirty years after, was serving there as a lieutenant of Marines. And one, which occurred in his own practice, of a child at 191 days, which died the day after its birth. *The lady had been married for years, and had had several abortions.*

10. Dr. Combe.—One case, positively spoken to, in which he considered the birth to have taken place from eight to fifteen days short of the completion of seven months. The child lived, to the Dr's. knowledge, a year afterwards, and then he lost sight of it, and could not tell whether still alive or not. The mother was married, cohabited with her husband, and had had three or four children previously.

11. Dr. Macwhirter.—A case in his own family, occurring at the 190th day of gestation, calculating from the day after the catamenia had been last seen. The child was his own son, born at Calcutta, and alive at the time of the trial, 18 years and a half old. The birth had been brought on apparently by mental agitation.

12. Mr. Aitkin, Surgeon.—The case of a Mrs. Younger, at Coaltown of

Callange, visited by him in August, 1835. A mother already and a married woman, living and cohabiting with her husband, and who calculated that, to the best of her knowledge, she was between four and five months gone with child at the time of his visit. On the 12th of September following, she was delivered of a living female child. On the 17th died, and was survived by her child five weeks and one day. It measured thirteen inches, and weighed about three pounds. Its skin was yellow and much shrivelled. Its voice, feeble. And the only cause to which he could trace its death, was its removal to a very cold house.

Professor ALISON.—Two cases by Belloc, of children born as early as the sixth months, and reared. One by Dr. Rodman, of Paisley, Edinb. Med. Journal, vol. xi., of a child not five months, which must have been very premature, "for it seemed to be kept alive only by its being wrapped in cotton, and kept close to its mother or to another woman; it could not suck at all for three weeks after birth, and when three weeks old, did not weigh two pounds, whereas the average weight at birth is nearly seven pounds, and very few live that are only three pounds weight at birth, yet this child was alive and thriving at the age of four months." And three other cases recorded by Dominico Meli, on good authority, of children believed to have been born at the fifth month, or very soon after, and which lived.

Dr. REID.—Belloc's cases, already cited:—two cases related by Schencke, two by Velpeau. The case of Mr. Crib, that of Mr. Baker also. And especially Hencke's case, given on the authority of Dr. Outrepont, professor of midwifery at Wurtzburg.

15. Professor CHRISTISON.—Three cases, one related by *M. Belloc* in his Cours de Médécine Légale; another, Dr. Rodman's referred to twice already; and the third, by Dr. Outrepont, published by Hencke in his valuable periodical, the Teitschrift für die Straats-arzneikunde. This last, especially, as "the only quite unequivocal instance hitherto published, of the rearing of a six months' child." "*The evidence is as complete as it is possible to be in any case of this kind.* It is complete, both as derived from the date of the mother's impregnation, and as drawn from the structure and history of the child. The mother, a young woman, whose catamenia had always been perfectly regular, was repeatedly connected with her husband, for some time after the cessation of their last flow. About a fortnight after this cessation of their flow, she underwent a general change in appearance, and began to have frequent attacks of vomiting and fainting, symptoms which she never had in her life before. These symptoms continuing, the catamenia did not return; and, about twenty weeks after their last appearance, she felt the first movements of the child. Five weeks after this, and twenty seven weeks after the last appearance of the catamenia, she was seized with labour-pains and uterine hæmorrhage, upon which Dr. Outrepont, having discovered that the hæmorrhage proceeded from placenta being attached over the os uteri, encouraged the labour, and brought it forthwith to a prosperous conclusion. Here, the evidence of the child being not more than 27 weeks, and possibly only 25 weeks old, is as strong as in the nature of things it is reasonable to expect. Every source which can supply any criterion of the accuracy of the reckoning is called into requisition. The state of the child at birth is even more unequivocal. It was a

boy, and breathed immediately on being born. It measured 13½ inches, and weighed one pound and a half. Its skin was covered with smooth lank down, and was much wrinkled. The whole extremities were extremely small in proportion to the trunk, and were kept constantly bent over the body, as during the existence of the fœtus in the womb. The nails of the fingers and toes were like mere white folds of skin—the testicles were still within the belly, and the pupillary membrane was entire. The child whined, but could not cry—slept almost constantly—awoke only once a day—seldom opened its eyelids, and was obviously insensible both to light and sound. For some time it was fed with the spoon, on diluted milk and sugar. In four weeks the down began to drop off from the skin. In 15 weeks, it had made very little progress in any respect. The wrinkles had disappeared, however, from the skin, and the length was increased an inch and three quarters. But from this time, which corresponded with the 40th or 42nd week after impregnation—that is, with the full period of utero-gestation—it made rapid advances—sleeping less—eating more—crying strongly—and becoming evidently sensible to sound, and pleased with the light. When 14 months old, it was of the weight and stature of a child born at the full time. In the eighteenth month, the testicles descended into the scrotum, without causing him any annoyance. In like manner the teeth began to appear easily in his third year. He did not begin to walk till half a year later; and at that time he differed from other children of the same age, not only in littleness, but likewise in the singular oldness of his expression of countenance. When Dr. Outrepont saw him in 1816, he was eleven years of age, was as big as a boy of seven or eight, and had just begun to read and write."

In the concluding words of the learned Professor, to whom we are indebted for the case itself—it is "quite decisive of the possibility of rearing a child born at the end of the sixth solar month, or in 26 weeks."

IV.—Opinions of the Medical Witnesses.

The *medical opinions* are, as in all such cases they have hitherto been, very discrepant. We shall not now notice the discrepancy, further than to observe, that in the present case it is partly accounted for by the very different amount of information respecting the particular case possessed by the witnesses for the prosecution, and those for the defence.

The opinions these gentlemen gave were founded partly upon their own experience, and partly upon the authority of others. We record them singulariter et simpliciter, as they were given in the order in which the witnesses were called before the Court.

1. Alexander Reid, M. D., surgeon, residing in Kirkcaldy; a practitioner of 22 or 23 years' standing.—*Decided*, that the child in question was prematurely born; and that the period of gestation at which a viable child may be produced is six calendar months.

2. James Storrer, surgeon in Kirkcaldy; a practising accoucheur for 13 years—deliveries accomplished by him averaging, during the latter years, three a week.—Seven months is the shortest period of gestation at which he has *known* a child to have been born alive, and capable of being reared.

3. Dr. James Hamilton, professor of midwifery in the University of Edinburgh since the year 1800; an accoucheur of 49 years' standing.—Has never known any infant born before the completion of six calendar months live, or rather exist above a few hours. In lecturing upon the subject, he makes a distinction between abortive infants and immature infants, and the result of his experience has uniformly been, that all infants born before the completion of seven calendar months after conception are abortive, that is, incapable of being reared. The shortest period of gestation after which a viable child may be produced is, at least, seven months. There is no difficulty, even the very smallest, to an experienced practitioner, in distinguishing between a child born before and after the expiration of seven calendar months. Places no credit in the cases recorded by foreign authors on subjects relating to practice which can only be investigated by persons of experience and veracity!!!

4. Dr. William Campbell, M. D. & F. R. C. S. E., residing in Edinburgh; a lecturer on midwifery in that city since 1819—a practising accoucheur since 1816—since when, has had either a direct or indirect responsibility in upwards of 8000 deliveries.—His belief is, that Mr. Jardine's child could not have been begotten after the marriage of its parents. Has known one child live ten or eleven days, who was born as nearly as could be calculated one week before the conclusion of seven calendar months. No child, which has been a shorter time than seven months in utero, can be reared. In the case of Madame Villars, reported by Desgranges, prefers the supposition of a double uterus to the admission of viability at so early a period as five months and sixteen days!

> Where others toil with philosophic force,
> Your nimble fellows take a shorter course:—
> Fling at your head, conviction—in a lump,
> And gain remote conclusions at a jump!

5. Alexander Zeigler, Esq., surgeon in Edinburgh for the last 20 years, and a practising accoucheur there for the last five years.—The child in question could not have been begotten subsequent to the marriage of its parents:—having attained to, at least, seven calendar months of gestation. Has never, in his own practice, known a child reared, or even born alive, until after the completion of seven calendar months, which is the shortest period at which a child may be born, capable of being reared. The number of reported cases to the contrary do not appear to him sufficiently authenticated. Although some writers, both in this country and on the Continent, have alleged that infants have been reared when born at $4\frac{1}{2}$, 5, 6, and $6\frac{1}{2}$ months of gestation.

Although Velpeau has produced much analogical reasoning in favor of precocious births, it can only be settled by an appeal to experience.

6. Dr. John Thatcher, M. D., lecturer on midwifery in Edinburgh for the last 20 years. An accoucheur since Nov. 1806, in most extensive practice, attending during the earlier part of it from perhaps 300 to 500, and during the last 10 or 15 years from 200 to 300 deliveries annually.

Considered the child to be decidedly premature—and not older than alleged by its parents. And that it is quite possible for a child to be born and live, previous to the conclusion of the seventh calendar month. His own experience enabling him to state this.

"Interrogated, whether there is any anatomical or physiological change, which invariably takes place in the fœtus at a particular period of gestation within which it is impossible, but beyond which it is possible, for a viable child to be born? Depones, I consider this a very abstruse question, as so much must depend upon the phenomena in the development of the fœtus in utero, which may be contingent on various phenomena connected with the age and health of either parent, and particularly in connection with the immediate phenomena connected with its uterine life or existence; but at the same time, if he were to venture to give a probable opinion in connection with all these circumstances, he would humbly venture to state, that it is very unlikely for a fœtus or child to live previous to the fifth month or thereby of utero-gestation; but as children vary in size and development at the full period, it is equally licit, just and reasonable, to presume that there may be variations of development in the early as in the latter months of utero-gestations, for which all allowances are and must be made, rendering it thus impossible as presumptuous to fix a decisive period for the viability or non-viability, and rearing of an infant expelled from the womb." 97.

7. Alex. Millar, licentiate and fellow of the Royal College of Surgeons in Edinburgh. An accoucheur of eight years' standing, with the experience of from 800 to 1,000 deliveries. Is of opinion that a viable child is capable of being produced "about the sixth month of utero-gestation."

8. Dr. Walter Buchanan, residing at Mount Pleasant, Greenock. A graduate of Glasgow, in general practice in America from 1799 to 1806; then, professor of midwifery in Columbia College, New York, afterwards, in 1812, a naval hospital surgeon under the American government. Does not consider it impossible that a child capable of being reared should be born after a gestation of 174 days. When asked if he considered it probable, he answered:—"There is a great difference between possibility and probability, and a great deal would depend upon the physical development of the child."

9. Dr. James Scarth Combe, Physician in Leith, and F.R.C.S.E. seventeen years in the practice of midwifery, with an annual average latterly of 100 deliveries; does not think it impossible for a child born after a shorter period of gestation than seven full calendar months, to be reared. And is unaware of any reason, anatomical or physiological, which should render it impossible for a viable child to be born after a gestation of 174 days. Believes no child to be viable before the completion of the fifth month.

10. Dr. John Macwhirter, physician and accoucheur, residing in Edinburgh. Does not think it impossible that a viable child should be born before seven full calendar months. Doubts of the viability of any child, if born upon the 153rd day of utero-gestation. But thinks a viable child might be produced after having been in the womb 26 weeks.

11. Dr. William Pultney Alison, physician in Edinburgh, formerly professor of medical jurisprudence in that University, at the time of his examination president of the Royal College of Physicians, and one of the clinical physicians to the Royal Infirmary. Without any practical experience as an accoucheur, never having practised in midwifery. Adheres to the opinion expressed in his notes of lectures, that the possibility of a child born at or even before the end of the sixth month, living, is not to be denied—knowing nothing in the structure of a fœtus about the age of six months, which should make its maintenance of a separate existence incredible. While he draws only the negative inference, "that he cannot deny the possibility of a

child living at this early period, he would say farther, that he thinks it on the whole probable, that there are instances, though very rare, of children born between the fifth and seventh months living at least some months."

"Interrogated:—Whether the deponent is aware that there are high authorities holding that a child is not viable till about the completion of the seventh month of gestation? Depones,—That he is perfectly aware of that, but does not consider it a question to be decided by authority, unless these authors had given a reason for thinking it impossible, and therefore for setting aside the opinion which he before gave, that it is a question to be decided only by fact and testimony. Interrogated:—Being a question to be decided by fact and testimony, does the deponent not consider that, if he had himself had an extensive practical experience as an accoucheur, he would have been better able to form a satisfactory opinion on the subject than he can be without that experience? Depones,—That he does not think that extensive practice as an accoucheur would have enabled him to weigh better the testimony of different anthors, upon which alone, as he thinks, in the present state of our knowledge, the question can be decided. He might have seen 5000 children born, and not one live below the 7th month, but this would not have entitled him to conclude that none can live below that month. He might have seen 5000 children born, and not one live that was below the weight of three pounds, but all that experience would have weighed for nothing against the fact, which no such experience is necessary to enable him to state, that children have lived whose weight when born was below two pounds."

12. Dr. John Reid, physician and lecturer on medicine in Edinburgh, is of opinion that it is impossible for a viable child to be born after a gestation of 174 days. Believes that no one can with safety fix any period of gestation within which it is impossible, but beyond which it may be possible, for such a child to be produced.

13. Dr. Robert Christison, professor of materia medica in the University of Edinburgh since 1832, and eleven years before that date professor of medical jurisprudence. No body doubts, now-a-days, the possibility of utero-gestation being prosperously concluded in less than nine solar months, or 280 days. The birth of a child at the 8th month, who subsequently attains the age of manhood, is far from being an uncommon occurrence. The possibility of a child capable of living, being born at the end of the 7th solar month is universally admitted; at the same time the rearing of such an one is a matter of much difficulty. The possibility of rearing a child born at the end of the sixth solar month is decisively established by Outrepont's case, and when to it is added "the other published cases which supply presumptive evidence to the same effect, we must, I think, admit that such an incident, in all probability, happens often enough to deserve being kept in view, in legislative enactments." Is of opinion that it is not impossible for a viable child to be born after a gestation of 174 days.

It is clear, that, so far as authorities go for any thing, their weight very greatly preponderates in favour of the prematurity of Mr. Jardine's child. The majority of the facts adduced by the witnesses have been a long time before the medical public, but scattered through many publications, most of which are unknown, and some inaccessible to the majority of readers. We have already noticed them in a former part of this article; along with several additional cases of abbreviated utero-gestation brought together in the "Record of the Proceedings" we have been analysing—and for further details we must refer to the report itself should that ever be re-

published, which it well deserves, not only on account of the importance of the principle involved, but also on account of the exceedingly valuable information embodied in the evidence of most of the professional witnesses —whose high professional characters are fully sustained by their testimony on this trial, with only one or two exceptions, which from motives of delicacy we abstain from particularizing.

Our own deliberate conviction is, that the majority were fully borne out in the conclusions to which they came. That the General Assembly was fully justified in restoring to Mr. and Mrs. Jardine their character untarnished and pure. And that the philosophical opinions of Drs. Alison and Christison will sooner or later become the rule with the profession, viz:— that a viable child may be born between the fifth and seventh months of utero-gestation.

MEDICAL STATISTICS.

I. STATISTICAL REPORTS OF THE SICKNESS, MORTALITY, AND INVALIDING AMONG THE TROOPS IN THE UNITED KINGDOM, THE MEDITERRANEAN, AND BRITISH AMERICA; Prepared from the Records of the Army Medical Department and War-Office Returns.

II. FIRST ANNUAL REPORT OF THE REGISTRAR-GENERAL OF BIRTHS, DEATHS, AND MARRIAGES IN ENGLAND. Octavo, pp. 168. London, 1839.

WE are only beginning to apply the numerical method to medicine, and we can scarcely be said to have begun to derive any result from it. Yet valuable results will be obtained, perhaps very unexpected ones. It would be presumptuous to limit the use or the sphere of such an engine of exactness, because it is impossible to foresee all the improvements of which our science is susceptible. But liberal as we may be, and cautious as we must be, we cannot but deprecate the absurd lengths to which some enthusiasts have carried their admiration of medical statistics, and to which they have stretched its employment. Minds of this lob-sided construction there will always be; the mass of thinking men will take care not to lurch to leeward with them.

The object, at present, is to amass facts; the inferences will follow after. Each Surgeon, however limited his sphere of practice, can help in this important work, and increase his own store of knowledge at the same time. And not a surgeon in England but should do so. Let him keep accurate memoranda of his cases—let him observe carefully, report correctly, and conclude without prejudice and without fear. If every medical man *would* do this, how changed would the face of medicine speedily be.

We turn to the works before us, and first to the Report of the Registrar-General.

Success of the new System of Registration.

It would appear that the registration is already answering. In spite of the opposition extended to it, in spite of the clamour raised and the difficul-

ties thrown in its way, and in spite of the clumsiness with which new machinery must necessarily work at first, the system has, even in the first year, been eminently successful. To us, as medical men, and for the sake of medical science, this intelligence is cheering.

The Registrar informs us, *that*, It appears from the comparative account of the population of Great Britain in the years 1801, 1811, 1821, 1831, laid before Parliament in 1831, pursuant to the Act of 2 Geo. IV. c. 30, that the population of England and Wales had increased from 8,872,980 in 1801, to 10,163,676 in 1811, to 11,978,875 in 1821, and to 13,894,574 in 1831, the rate of increase, from 1801 to 1831, being 16·13 decennially; and from 1821 to 1831, being 16·01. Assuming that the latter rate of increase, which differs so slightly from that of the whole 30 years, has continued from 1831 to 1838, it will result from calculation that the population of England and Wales on January 1, 1838 (the middle of the first year of registration, ending June 30, 1838,) was about 15,324,720.

It is assumed in the Preface to the Population Abstract for 1831, that the medium population for the years 1821 to 1830 was 12,938,030; and it appears from the same authority, and from the Abstracts of Answers and Returns under the Population Act 11 Geo. IV. c. 30, that the mean annual number of registered Burials during that period was 246,290. If the proportion which the registered Burials bore to the population in the years 1821 to 1830, is applied to the population in 1838, estimated to be about 15,324,720, it will appear that the probable number registered in the Parochial Registers for the year ending June 30, 1838 will have been about 291,715. But the number of Deaths registered under the new system, in the year ending June 30, 1838, has been 335,956, thus exceeding the estimated number in the Parochial Registers of Burials by 44,241.

"The greater efficacy," the Registrar goes on to observe, "of the new system in approximating to a complete Registration of Deaths, is sufficiently apparent from the foregoing statement; but it remains to be shown to what extent it is successful, and what is the whole number of Deaths which could have been registered if there had been absolutely no omissions. Here no proof can be afforded, and recourse must be had to calculation for an approximation to the probable truth. Reverting to the Preface of the Population Abstract for 1831, I find it stated that, upon the supposition that 'one-sixth may be justly added to the average of the registered Burials, (1820—1830,) and assuming the medium population at 12,938,030, the proportion of Deaths has been *one* in 45 of the population.' Apply this latter number as a divisor to the estimated population in the year ending June 1838, and the quotient, showing the probable number of Deaths in that year, will be 340,549. Mr. Finlaison, in his letter subjoined in the Appendix, has estimated the number of Deaths at 335,968.

Now the number actually registered has been 335,956, a number approximating very remarkably to that of Mr. Finlaison's estimate. It is evident, however, that this latter estimate is a little too low, for it must be remembered that the *first* year's Registration cannot comprise the deaths of the *whole* year; and that, while no deaths which occurred before July 1, 1837, can be included in the first year's returns, there will be many which occurred near the close of the fourth quarter ending June 30, 1838, which will not have been registered in that quarter, and can be included only in the Abstract of the year ending June 30, 1839. I have ascertained that 2,704 Deaths, which occurred in the first year of Registration, have been thus registered in the first quarter of the second

year; therefore, the whole number of Deaths occurring in the first year of Registration, which have been registered then and afterwards, is at least 338,660, a number less than the highest of the two estimates by only 1,889, and affording strong presumptive evidence of a success in the practical operation of this part of the new system, which must probably have exceeded the most sanguine expectations that could have been entertained." 21.

Registration of Births.—This has not been so successful as the Registration of Deaths. Yet it has beat the old registry of Baptisms already, and will probably be more and more successful as prejudices wear away, opposition is tired out, and knowledge of the advantages of the measure makes progress.

Expectation of Life at various Ages.

"I am aware that with a progressive population, and especially with a population of which the ratio of increase appears to have varied so considerably in different parts of the kingdom, (varying, between the years 1821 and 1831, from 2 per cent. in the North Riding of Yorkshire to 36 per cent. in Monmouthshire,) an attempt to form a Table of Mortality, showing the expectation of life at successive ages, deduced alone from the Abstracts of Deaths for a single year, must be attended with great risk of error. I shall, therefore not attempt to form any such table from such materials, but shall exhibit only recorded facts, accompanied with such deductions as are clear and unimpeachable, and may serve to render comparison more easy.

TABLE showing the proportion of Deaths at different Ages, out of 10,000 Deaths of Males, of Females, and of both sexes, according to the Registers of Burials 1813—1830, and according to the Registers of Deaths for the year ending June 30, 1838.

Age.	Registers of Burials.			Registers of Deaths.		
	Males.	Females.	Both Sexes.	Males.	Females.	Both Sexes.
Under 1 year	2,188	1,756	1,975	2,339	1,933	2,140
1 to 4	1,498	1,450	1,474	1,742	1,780	1,760
5 „ 9	437	410	424	457	462	460
10 „ 19	579	636	607	554	647	599
20 „ 29	724	839	781	738	833	785
30 „ 39	621	725	672	655	715	683
40 „ 49	649	670	659	653	632	643
50 „ 59	715	784	700	656	621	638
60 „ 69	911	922	917	813	823	818
70 „ 79	1,012	1,086	1,049	830	883	856
80 „ 89	584	700	641	473	556	514
90 & upwards	75	116	95	94	115	104

The largest and most important collection of facts relative to deaths at various ages made hitherto in this country, is the Table given in the Preface to the Population Returns for 1831, containing the ages of 3,938,496 persons, (of whom 1,996,195 were males, 1,942,301 females,) buried in England and Wales

during 18 years, 1813—1830. In the subjoined table, I have afforded the means of comparing the result of this Registration of Burials with those of the Registration of Deaths for the year ending June 30, 1838, reducing each to the same denomination, and exhibiting their respective proportions to a common total. The difference between them will be found to consist chiefly in the larger proportion of deaths of infants, which appear in the Registration of Deaths—a difference which was to be expected; for it was known that it was in the record of such deaths that the Registration of Burials was principally deficient.

Longevity in different parts of the Kingdom.

Among the diversities, says the Registrar, which especially demand attention, and by which there is least danger of being led to false conclusions, are those which relate to longevity, showing the varying proportions of deaths in old age in different portions of the kingdom. From a few instances of extreme longevity no inference can be safely drawn; but the fact that of the deaths in any district a comparatively large proportion is above the age of 70, is a strong presumption in favour of the health of that district. These proportions will be found to vary greatly. In the whole of England and Wales, out of 1000 deaths, 145 have been at the age of 70 and upwards; while in the North Riding and northern part of the West Riding of Yorkshire, and in Durham, except the mining districts, the proportion has been as high as 210. In Northumberland, (excluding the mining district,) Cumberland, Westmoreland, and the north of Lancashire, the proportion has been 198; in Norfolk and Suffolk 196; in Devonshire 192; and in Cornwall 188.

In contrast with this evidence of the large proportion of persons who attain to old age in these more thinly-peopled portions of the kingdom, we find results extremely different where the population is densely congregated. In the metropolis and its suburbs the proportion who have died at 70 and upwards has been only 104; and even this proportion is favourable when compared with that of other large towns—the proportion in Birmingham being 81; in Leeds 79; and in Liverpool and Manchester only about 63.

Every fact which comes out displays the comparative salubrity of rural districts and insalubrity of large towns. The Army Reports, the Registrar's, and the limited experience of private practice, severally combine to prove this. London too bears the palm from the great commercial cities of England, and it is not a little curious that Manchester, which was placed by Dr. Hawkins highest on the scale, figures here the lowest.

Deaths at particular Ages.

A very marked diversity also appears in the proportion of deaths of infants in different parts of the country. In the mining parts of Staffordshire, and Shropshire, in Leeds and its Suburbs, and in Cambridgeshire, Huntingdonshire, and the lowland parts of Lincolnshire, the deaths of infants under one year have been more than 270 out of 1000 deaths at all ages; while in the northern counties of England, in Wiltshire, Dorsetshire and Devonshire, in Herefordshire and Monmouthshire, and in Wales, the deaths at that age out of 1000 at all ages scarcely exceeded 180.

The Registrar adds some very important observations:—

"But it is less essential that I should point out diversities which examination of the appended table will easily detect, than that I should advert to other circumstances which must also be borne in mind by those who would avoid erroneous inferences. The comparative table alone will not accurately indicate the comparative list of deaths at different ages, in different divisions of the kingdom, unless it be true that in each division there is the same proportion of persons living of the same age. But such an assumption is utterly disproved by the enumeration of the ages of persons living in May, 1821, made under the authority of the Population Act, which shows a wide difference in the proportions which were then found in the several counties.

To illustrate the risk of error from inattention to that circumstance, I will compare the deaths between the ages of 20 and 50 in Division 1, comprising the metropolis, with those in Division 6, comprising Hertfordshire, Bedfordshire, and Buckinghamshire, and the rural parts of Middlesex. It appears that in Division 1, the deaths between those ages out of 1000 at all ages are 241, while, in Division 6, they are only 192; from whence arises apparently an undeniable inference that there is some cause operating in the metropolis tending to cut short life when it has run through about half its natural course, which does not equally affect it in the adjacent rural districts. But it appears from the enumeration made in May, 1821, that of 10,000 persons of both sexes then living in Middlesex, there were 4,522 between the ages of 20 and 50; while the mean number of persons of the same age in Bedfordshire, Buckinghamshire, and Hertfordshire, was only 3,581, a remarkable difference, attributable to the circumstance of persons born in the counties near London quitting them, as they emerge from childhood, to seek employment in the capital. There were thus 4,522 persons exposed to the risk of death, between the ages of 20 and 50, in Middlesex, for 3,581 in those three adjacent counties, and if the mortality were equal, the deaths between those ages in Middlesex and in the other three counties ought to bear the same proportion. Therefore, upon the supposition that the proportions of the living remain the same as in 1821, the results exhibited by the Abstract of Deaths will not be unfavourable to the metropolis.

Again, on comparing the proportion of deaths under 5 years of age in Division 19, (comprising Lancashire, south of Morecambe Bay, with the exception of Manchester and Liverpool,) with the same in Division 25, comprising Herefordshire, Monmouthshire, and Wales, it appears that in the former division there were 458 deaths, and in the latter 365. But on referring to the table, founded on the enumeration of 1821, it appears that out of 10,000 persons of each sex in the county of Lancaster exposed to the risk of death, under the age of 5, there were 1,711 males, and 1,582 females; while in Hereford the proportion was only 1,317 males, and 1,326 females; in Monmouthshire, 1,320 males, 1,404 females; in Wales (collectively) 1,514 males, 1,382 females. If, therefore, the proportion of the living at the above-mentioned age continued to be the same in the year ending June, 1838, and the mortality at that early age were the same in both Divisions, the proportion of deaths in Division 19 would of necessity be greater than in Division 25.

Being convinced that a consideration of these facts is essential as a corrective to undue inferences which might otherwise be drawn from the Abstract of Deaths, I have caused the above-mentioned table, which may be found among the preliminary observations to the Population Abstracts of 1821, with the addition of the same for Wales collectively, to be appended to the Abstracts of Deaths. It is possible that the proportions there set down may have varied greatly in the lapse of 18 years; they are, therefore, re-produced for reference, not as affording sure grounds for calculation, but as warnings and correctives to the erroneous calculations which might otherwise be made. If, at the next ensuing census, a similar enumeration shall be made successfully, its results,

combined with the registered deaths of an equal number of antecedent and succeeding years, will afford to the public the most important and useful materials for the solution of all questions depending on the duration of human life that have ever yet been possessed." 25.

The bulk of the volume is made up of circulars, abstracts, and tables, which it is impossible for us to notice. They are of great value as statistical documents, and will, we do not doubt, be amply consulted. But there is a circular from the Registrar, and a letter to him, which should not be so dismissed.

CIRCULAR AND APPENDED EXPLANATORY STATEMENT ADDRESSED TO MEDICAL PRACTITIONERS, RESPECTING THE REGISTRATION OF THE CAUSES OF DEATH.

This Circular emanates from the Colleges of Physicians and Surgeons, and from the Society of Apothecaries, and is addressed to the profession. It appeared at the time in the medical journals, but a year having passed, the system being in full operation, and the advantages which must accrue to science from its success being so striking, we think it right to re-circulate the Circular, and to lean on its recommendations with all the weight that we possess. We would intreat our readers to contribute to their utmost, towards rendering the Registration of the Causes of Death a perfect one. By doing so they will be rendering a most important service both to society and science. We now quote the Circular.

The recent Act for registering Births, Deaths, and Marriages in England presents an opportunity for obtaining that great *desideratum* in medical statistics, a more exact statement of *the causes of death*, in the case of every registered death throughout the whole of England and Wales, after the month of June next ensuing.

The Register-Books in which all deaths are to be registered after the last day of June, 1837, contain columns wherein may be inserted the *cause of death*, in juxtaposition with those other important illustrative circumstances, the *sex*, the *age*, and the *profession* or calling of the deceased person. Each Register Book will also be assigned to a particular District of small extent, and will thus show in what part of the kingdom each death has occurred. If, therefore, the cause of death be correctly inserted, there will exist thenceforward public documents, from whence may be derived a more accurate knowledge, not only of the comparative prevalence of various mortal diseases, as regards the whole of England and Wales, but also of the *localities* in which they respectively prevail, and the *sex*, *age*, and *condition of life*, which each principally affects.

For the attainment of this object, it is necessary to ensure, as far as it is possible, the correct insertion of the "*cause of death*." It is obvious that on this subject the requisite information can seldom be given to the Registrar, except by the medical attendant of the deceased person, and that even if the Registrar be a medical practitioner (which in many instances will be the case), yet will he often be unable to ascertain the truth in this respect, if he is to depend solely on the reports of persons ignorant of medicine, and of the names and nature of diseases; and it cannot be expected that from his own knowledge he will be able so far to correct their errors, as to

ensure a statement worthy of credit. The requisite information must therefore be supplied either *directly* or *indirectly* by the medical attendant of the deceased person;—that is to say, if such medical attendant is not applied to by the Registrar, he must afford the requisite information to those other persons to whom the Registrar must apply.

The persons who according to the Act for Registering Births, Deaths, and Marriages in England, must give information to the Registrar on being requested so to do, are "some person *present at the death*, or *in attendance* during the last illness," or "in case of the death, illness, inability, or default of all such persons, the *occupier* of the house or tenement, or, if the occupier be the person who shall have died, some *inmate* of the house or tenement in which such death shall have happened." It is also provided that, "for the purposes of this Act, the master or keeper of every goal, prison, or house of correction, or workhouse, hospital, or lunatic asylum, or public or charitable institution, shall be deemed the *occupier* thereof."

It is therefore earnestly recommended that every practising member of any branch of the medical profession who may have been present at the death, or in attendance during the last illness of any person, shall, immediately after such death, place in the hands of such other persons as were in attendance, of the occupier of the house in which the death occurred, and of some inmate who may probably be required to give information, *written statements of the cause of death*, which such persons may show to the Registrar, and give as their information on that subject.

It is desirable that such statement should be very short, the column in the Register Book in which it is to be inserted being not more than sufficient for the insertion of about ten words of moderate length. It should therefore contain only the name of the disease which was considered to be the cause of death, and not a *detailed* account either of antecedent symptoms or of the appearances which may have presented themselves after death. It is also desirable that such statement should exhibit the popular or common name of the disease, in preference to such as is known only to medical men, whenever the popular name will denote the cause of death with sufficient precision.

One of the appendices to this Report consists of a letter to the Registrar General from Mr. William Farr, a gentleman known to all our readers for his indefatigable exertions in promoting medical statistics.

This letter presents abstracts of the recorded causes of 141,607 deaths, which were registered in England and Wales during the half-year ending December 31st, 1837. With the following observations we cordially concur.

"One of the many obvious applications of the facts will be to the promotion of practical medicine. The extent to which epidemics vary in different localities, seasons, and classes of society, will be indicated by the registered diseases; and the experienced practitioner, wherever he may be placed, will learn to administer remedies with discrimination, and with due reference to the circumstances of the population. He will discover that the characters of diseases change, and will not treat a pneumonia in the same way in Whitechapel and in Westmoreland, if it appear, from the causes of death, that the diseases and constitution of the population present striking discrepancies. The modifications in the character of diseases, and in the medical treatment, are indicated perhaps more accurately by the prevailing epidemics than by either the temperature, the hygrometricity, or any other appreciable condition of the atmosphere; and

it was Sydenham's doctrine, that the treatment of acute diseases should have a reference not only to the immediate symptoms, and to the seasons, but also to the epidemic constitutions of the year and place. A national system of registration like the present can alone indicate the characters of the diseases in every district; and determine how far the practice taught in the schools, or illustrated in crowded hospitals, and in the unhealthy parts of the metropolis, among the destitute poor may require modification among other classes of society, and in other localities.

The registration of the diseases of the several districts will furnish medical men with a series of valuable remedial agents. It will designate the localities where disease is most rife, and where there is the least tendency to particular classes of sickness and infirmity. In recommending a residence to patients the physician will find the registered causes of death an indispensable directory; and the utility of a sanatory map of the country, such as the returns will furnish, cannot fail to be felt in England, where a part of the population is constantly migrating from place to place in search of health. Much information has been collected respecting the influence of the English climate; but the facts will bring to light many salubrious spots hitherto unknown, and disclose the dangers which infest others unsuspected. Invalids resort to some unhealthy places; families carry their children in the Autumn into districts where small-pox and measles are often epidemical, or go into parts of the country where, as the registration shows, bowel complaints and fevers are extraordinarily fatal.

The registration of the causes of death, besides contributing to practical medicine, will give greater precision to the principles of physic. Medicine, like the other natural sciences, is beginning to abandon vague conjecture where facts can be accurately determined by observation; and to substitute numerical expressions for uncertain assertions. The advantages of this change are evident. The prevalence of a disease, for instance, is expressed by the deaths in a given time out of a given number living with as much accuracy as the temperature is indicated by a thermometer; so that when the mean population of the district is known, the rise and decline of epidemics may be traced exactly, and it will then be possible to solve the problem, whether certain tribes of epidemic disorders constantly follow others, in one determined series or cycle. Loose phrases are still current, for which numerical formulæ will be substituted. Sydenham, one of the most accurate of medical writers, in speaking of small-pox, employed such terms as these: (1661) 'It prevailed a little, but disappeared again.'—(1667–9) 'The small-pox was more prevalent in town for the first two years of this constitution than I ever remember it to have been.'—(1670–2.) 'The small-pox arose; yielded to the dysentery; returned,' &c. &c. These terms admit of no strict comparison with each other; for it is difficult to say in which year the small-pox was most fatal, and impossible to compare Sydenham's experience thus expressed with the experience of other writers in other places and other ages; for 'prevailed a little,' 'raged with violence,' and similar terms, may imply either that small-pox destroyed 1, or 2, or 5, or 10 per cent. of the population." 87.

It cannot be forgotten how egregious a fallacy, how monstrous an absurdity was promulgated in a controversy upon erysipelas, a few years ago by an eminent hospital surgeon. Where, said Mr. Lawrence, does the region for bark and that for bleeding begin? At what particular mile-stone from the city does disease alter its character? This logical quibble was directed against the idea of an essential difference of the medical constitution of the country and the town—an idea dictated at once by reason, sanctioned by individual experience, and confirmed in the most positive manner by the registry.

Mr. Farr adds:—Only a limited number of facts fall under the notice of a

single observer. His opinions, when they are the results of his own expeperience, are stated in general terms, and are often adopted by others in entirely different circumstances. Notwithstanding the constancy of Nature, this leads to serious practical errors. Hippocrates wrote his immortal works in Asia Minor and Greece, in a particular climate, stage of culture, and civilization; yet all his precepts were taken for the guide of his successors in England, France, and Germany. The therapeutic doctrines of Sydenham, who lived in Pall Mall, and practiced principally in Westminster, spread through Europe. The celebrated Broussais' theory of irritation and *gastro-enterit* originated in the French camps. The physicians of this country, when the causes of death are universally recorded, and recorded accurately, will be saved from the fallacies of partial generalization; and, with the results of the registry before them, will be enabled to obtain extended views of the nature, courses, and modifications of diseases. They will have, as a basis for deduction, their own observations, and those of every medical practitioner in England and Wales, in all places, and in all times; for the national registration goes on in Winter and Summer, in Spring and Autumn; and it extends to all parts of the kingdom and to all classes of society.

The works of Huxham, Haygarth, Short, Heysham, Heberden, Willan, Bateman, and many recent medical writers, present illustrations of all these propositions; although they rarely had access to sources more authentic that the Bills of Mortality.

Any improvement in the treatment of disease, and any addition to medical science, will tend ultimately to the diminution of human suffering; but the registration of the causes of death is calculated to exercise a still more direct influence on the public health. Diseases are more easily prevented than cured, and the first step to their prevention is the discovery of their exciting causes. The registry will show the agency of these causes by numerical facts, and measure the intensity of their influence. The annual rate of mortality in some districts will be found to be 4 per cent, in others 2 per cent.; in other words, the people in one set of circumstances live 50 years, while in another set of circumstances, which the registration will indicate, they do not live more than 25 years. In these wretched districts, nearly 8 per cent. are constantly sick, and the energy of the whole population is withered to the roots.

Mr. Farr believes that, by proper hygienic measures, it is possible to reduce the annual deaths in England and Wales by 30,000, and to increase the vigour of the population in an equal proportion. Of this we ourselves entertain no doubt. When we look to the obvious causes of disease which are abounding—to the intemperate habits—the immoral licence—the crowded habitations—and the filthy quarters of the poor in towns, we cannot but feel how materially a diminution, not to say suppression, of these evils must contribute to the health, the energy, and the happiness of the English people. Growing as the population is in numbers, agitated as it is with the inquiry into the nature of political institutions, it becomes yearly a more anxious subject of solicitude to Government, and of interest to humane and thinking men. Some of the difficulty of bettering the people's condition will assuredly be lightened by medicine and statistics.

We appeal to every member of the profession to contribute, so far as he has the power of contributing, to the accumulation of *genuine* facts. The

accuracy of the Register is every thing. If the causes of death are set down in a slipslop fashion, if vague, and gossiping, or inaccurate returns are made, science will be poisoned at its roots, and the error will be the more fatal and more gross, because an error of numbers.

Mr. Farr makes some observations on *Statistical Nosology*, for which we regret that we have not room. We think it would be well, if the names of diseases were better agreed on, but we think it is of even more importance to give *the* correct designation, however circumlocutory. Mr. Farr suggests that:—

In order to render the Register as correct as possible, it is desirable that the cause of death should be directly certified in every instance by the medical attendant, who might either leave the certificate with the informant, or give it upon application to the registrar. When the medical attendant is the informant, he will of course sign the register, as directed by the Act. The certificates of the cause of death might be in one of the subjoined forms, which present examples of some of the most complicated cases. The duration of the fatal disease should be stated, *when known*, in hours, days, or years, which should supersede the words "sudden," &c., and in the end furnish many highly important results. The registrar should insert the terms corresponding to those in italics in the column of the register headed "Cause of Death."

Edward Davies, aged 11, died of *Typhus, terminating in pneumonia, after 15 days' illness.** (Signed) * The primary and secondary diseases should be specified in the Registers.
Thomas Williams, aged 70, died of *Apoplexy (second attack, of 1 day's duration), with effusion of blood into the ventricles of the brain.* (Signed)
Mary White, aged 40, died of *Carcinoma of the breast, of 2 years' continuance.** (Signed) * The *nature* of the disease, and the *parts* affected should be specified in cases of this kind.

Mr. Farr appends a great number of Tables, and presents us with a running commentary upon them. It would be impracticable to present the Tables themselves, or even to offer a continuous line of commentary. We must content ourselves with picking out such passages and facts as appear to us instructive.

Mortality from Influenza in 1837.—Influenza prevailed epidemically in the beginning of the year 1837, and destroyed great numbers. It subsided in March, and the rest of the year was considered healthy. The number of burials collected and published by the London parish-clerks in the months of

January and February (or rather 20th December 1836, to 21st February 1837), were 2,053 and 2,336, while the average monthly burials of the next nine months were 1,355.*

These wholesale omissions of the Parish Clerks are certainly rather startling.

Mortality per Cent in the last half year of 1837.—Calculated from the registered deaths in England and Wales, for the last half year of 1837, the annual rate of mortality per cent. was then found to be nearly:—

Males.	Females.	Mean of the two Sexes.	
2·08 . .	1·97 . .	2·02	per cent.
or, 1 in 48 . .	1 in 51 . .	1 in 49	

Deaths from Small-pox.—Small-pox destroyed 5,811 lives in the half year. It will be seen subsequently that small-pox was epidemic in several parts of the country, particularly in Liverpool, Bath, and Exeter. The following were the ages at which 1,056 of the deaths occurred in Bath, Liverpool, Exeter, parts of Shropshire, Worcestershire, and the Metropolis.

Age	0—4	5—9	10—14	15—19	20—29	30—39	40—49	50—59	All ages.
Deaths..	887	99	15	18	29	5	2	1	1,056

This specification of the ages may be considered an approximation to the ages of the 5,811. It has a direct bearing on a very important practical question which has recently engaged attention, namely, whether the prevalence of small-pox is due to the diminished influence of vaccination, or whether the protective power of vaccination progressively declines, so that a child vaccinated at 2 years of age is more susceptible of small-pox at the age of 20, or 30, than at any earlier age. The facts in the registers would decide the question if the medical attendant ascertained whether the individuals who died of small-pox had ever been vaccinated, and if this fact and the interval between vaccination and death were entered: which might easily be done. In the mean time it seems exceedingly probable that the majority of the 5,811 had never been vaccinated, as they were very young, and when the poorer classes do not neglect vaccination altogether, they often defer it for

* It may not be uninteresting to compare the results of the registration with the London bills of mortality. The total burials in the Bills of 1837 amounted to 21, 063; and in the six months 21st June to 26th December 1837, corresponding nearly with the half year during which the Registration Act had been in operation, the number of burials in the Bills was 10,518 ("Gentleman's Magazine," 1837). The number of deaths registered in the same parishes under the Act was 18,266; and as 4,450 burials, many of which occurred in the first half of the year, are set down to December, it may be safely asserted that the parish clerks registered little more than half the deaths that occurred within the limits of the London bills of mortality.

years. Vaccination is delayed too long by all classes; it should not be practised later than the first three months, as the early deaths at Bath and Liverpool testify.

Deaths from Mental Emotions.—Ten deaths—nine of females, one of a male—are ascribed to mental emotions of one kind or other; seven to fright, one to grief for the death of a son, and two to a broken heart. It is well established that grief and distress are the roots of various organic diseases, and many cases are recorded in which sudden mental shocks have destroyed life, or induced madness. Where life is destroyed instantly, the connexion of the shock with the death is less equivocal than in cases where a considerable interval elapses between the two events. It happens that in two of the cases the alleged cause, as well as the deaths, were recorded. A female, aged 63, it is said, died November 7th from trouble for the death of her son; and from another page of the register it appears that the son's death occurred October 30th. Again the death of a female, aged 41, on November 14th, is ascribed to "fright," occasioned by the sudden death of her brother; and her brother died on the 19th of October.

Deaths from Consumption.—The deaths from this dreadful malady amounted to 27,754 = 20 per cent. of the total number of deaths; or nearly 4 annually, out of 1000 living.

Diseases of the Digestive Organs.—5,115 males and 4,735 females died of disease of the digestive organs, and the annual rate of mortality in the males was 1·5, in the females 1·3, out of 1000 living. Nearly all diseases of the intestinal canal proved most fatal to males, so did jaundice and all the diseases of the liver, except hepatitis. Hernia is much more common in males than females, yet the mortality in the two sexes—·044 and ·029 per 1,000—did not differ so widely, and the reason of this is, that the bowel when it does escape is much more liable to strangulation in the hernia of females than in the hernia of males.

Diseases of the Urinary Organs.—Diseases of the urinary organs destroy five times as many males as females,—the rate of mortality of the two sexes, under this head, having been ·199 and ·037 per 1,000. The disparity has been ascribed to mechanical causes; but will a mechanical explanation account for the fact that 68 males and only 27 females died of diabetes? Dr. Yelloly, in a paper published in the Philosophical Transactions, estimated that 1 in 108,000 persons was cut annually for stone in England and Wales. It appears from the table that 47 in 1,000,000 males, and 5 in 1,000,000 females, die of stone and gravel. The latter, it must be admitted, is a vague term in popular language; but the mortality from stone is certainly 1 in 100,000 annually. Bright's disease is registered "Disease of the Kidneys." The coagulability of the urine is often undetected by careless practitioners. A female child, aged two years, is stated to have died *suddenly* of diabetes.

Diseases of the Tegumentary System.—The mortality from all the diseases of the skin *and* of the digestive organs is about 1,976 per 100, and it is a curious coincidence that the mortality from all the diseases of the digestive organs is nearly the same—2 067. The diseases of the connected internal

and external membranes are equally destructive; but the mortality from diseases of the two systems together is only 4., while that from diseases of the respiratory organs is 5.5 per 1,000.

Intemperance and Starvation.—Males are, according to the registers, more intemperate than females, as the deaths of 70 males and of 15 females were ascribed directly to intemperance; of 67 males and 12 females to gout; of 86 males and 9 females to delirium tremens (in the second class). It will be seen with regret that in the half-year the deaths of 63 individuals were ascribed (principally at inquests) to starvation; this is almost 1 annually to a population of 111,000. The want of food implies the want of every thing else—except water—as firing, clothing, every convenience, every necessary of life, is abandoned at the imperious bidding of hunger. Hunger destroys a much higher proportion than is indicated by the registers in this and in every other country; but its effects, like the effects of excess, are generally manifested indirectly, in the production of diseases of various kinds. The privation is rarely ever absolute; the supply of food is inadequate to supply the wants of the organization, which requires daily animal or vegetable matter containing not less than nine ounces of carbon.

Ages of Forty-four Suicides.

Age	10—20	20—30	30—40	40—50	50—60	60—70	70—80	All ages.
Males.....	1	5	..	3	4	1	..	14
Females ..	5	7	2	3	8	3	2	30
Both Sexes	6	12	2	6	12	4	2	44

Diseases of Towns and of the Country.

Mr. Farr devotes several tables and many observations to this most important subject. It comes home individually to all of us—it affects the great question of the Poor Law—and it is a matter of the utmost consequence to the Government of the country. The means of improving, physically as well as morally, the lower classes of the town population, must speedily become a source of anxious consideration to the Legislature. The real state of the case, and the actual nature of the evil must be understood before any remedy can be applied, and statistical tables will give us the requisite information.

The area, says Mr. Farr, of England and Wales is 57,805 square miles; and as the land population in the period under investigation was about 15,330,000, the number of inhabitants to a square mile was 265. The population is very unequally distributed; being thinly scattered over the agricultural districts, and accumulated at different intervals in villages, towns, and cities, where, as for instance in the metropolis, in the Unions of St. Giles and St. George Bloomsbury, the Strand, the City of London, East and West London, Holborn, St. George in the East, and St. Mary White-

chapel, the number of inhabitants to a square mile is 123,904. The population increased very slightly in these districts in the interval between the censuses of 1821 and of 1831; whence it may be inferred that the ground is nearly all occupied. In the East and West London Unions, however, the population is still more dense; the number of inhabitants to a square mile is 186,046. The greatest density attained in the heart of English cities is therefore nearly 243,000 inhabitants to a geographical square mile.

We imagine that some mistake has been made in the latter computation. Be that as it may, Mr. Farr gives a table, which exhibits two sets of observations—the deaths in the metropolitan division, with a population of 1,790,451, lodged upon an area of 70 square miles, and the deaths and fatal diseases in Devonshire, Dorsetshire, Wiltshire, Cornwall, and Somersetshire, where nearly the same number of inhabitants (1,723,770) was distributed over an area of 7,933 square miles. The five counties form the south-western division of England, and are bounded by the sea and a line running from Studland Bay to the Avon.

It appears that the area of square miles in the metropolis is 70—in the counties, 7,933. The estimated population, 1st of October, 1837, was, in the metropolis, 1,790,451,—in the counties, 1,723,770. The population to a square mile, in the metropolis, 25,578—in the counties 222. Let us look at the mortality.

	Metropolis.	Five Counties.
Deaths, 1st July to 31st December 1837	24,959	15,210
" 1st January to 30th June 1838	28,638	18,864
	53,597	34,074

In comparing the deaths from different diseases in the metropolis with those in the counties it will be recollected that the counties include Exeter, Plymouth, Portsmouth and Portsea, Southampton, Bath, and a great number of towns; that small-pox was epidemic in Bath and Exeter; dysentery in Taunton; and that the health of this half-year in the entire extent of country was by no means favourable.

We are not clear how Portsmouth, Portsea, and Southampton, can be taken out of Hampshire, and given to the "five counties."

Mr. Farr proceeds to examine the particular classes of disease which are rife in country and town. It appears that the crowding of cities doubles the mortality from epidemic, endemic, and contagious diseases, as well as from diseases of the nervous system—the ratio of deaths having been as 1 to 2.11, and 1 to 2.13; and upon reference to the individual diseases in Tables C. D. it will be seen that the augmentation in the latter class occurs principally in convulsions and hydrocephalus:—Deaths by convulsions, counties, 1,347, cities, 3,723, ratio 1 : 2·76; by hydrocephalus, counties, 559, cities, 1,540, ratio 1 : 2·75. It has already been intimated that convulsion is a frequent intercurrent system in diarrhœa and diseases of the epidemic class in infants; it may exist, however, as an independent affection, and in that case has clearly, as well as hydrocephalus, with which it is allied, an epidemic character. A similar remark will apply to pneumonia and bronchitis of which 1,209 cases were registered in the counties, 2,865 in the cities; ratio 1 : 2·37. The pulmonary inflammation was, in many cases, developed in the course of measles, influenza, and other diseases of

the first class. The three following diseases, which principally affect adults between the ages of 15 and 65, show that unhealthy places augment the fatality of diseases in different degrees.

	Counties.	Cities.	Increase per cent. in Cities.
Deaths by consumption	5,857	8,125	39
" childbirth	217	372	71
" typhus	1,564	3,456	221

This gives the classification a peculiar property. Wherever the absolute mortality is low, the number of deaths in the epidemic class is less than the number in the pulmonary class; and, on the contrary, wherever the deaths in the first class exceed or equal those in the third, it may be affirmed that the absolute mortality is high.

"The occupations in cities," remarks Mr. Farr, "are not more laborious than agriculture, and the great mass of the town population have constant exercise and employment; their wages are higher, their dwellings as good, their clothing as warm, and their food certainly as substantial as that of the agricultural labourer. The Poor Law Inquiry, and successive Parliamentary Committees, have shown that the families of agricultural labourers subsist upon a minimum of animal food, and an inadequate supply of bread and potatoes. The source of the higher mortality in cities is, therefore, in the insalubrity of the atmosphere." 111.

"All gases and effluvia, like odours, are diffusible; they have a certain force of diffusion, which Professor Graham has expressed numerically; and all the emanations from human habitations in the open country mingle, almost as soon as they escape, in the currents of the atmosphere. But locate, instead of one individual to a square mile of land (the supposed density of population in the uncultivated forests of America and the steppes of Asia,) 200,000 individuals upon a square mile, as soldiers in a camp, and the poison will be concentrated 200,000 fold; intersect the space in every direction with 10,000 high walls, which overhang the narrow streets, shut out the sunlight, and intercept the movements of the atmosphere; let the rejected vegetables, the offal of slaughtered animals, the filth produced in every way, decay in the houses and courts, or stagnate in the wet streets; bury the dead in the midst of the living; and the atmosphere will be an active poison, which will destroy, as it did in London formerly, and as it does in Constantinople now, 5-7 per cent. of the inhabitants annually, and generate, when the temperature is high, recurring plagues, in which a fourth part of the entire population will perish. But the health will be little more impaired by residence upon one than upon 100 square miles, if means can be devised for supplying the 200,000 individuals with 200,000,000 cubic feet of pure air daily, and for removing the principal sources of poisonous exhalations. The latter object is partly accomplished by paved, even streets, by the scavenger, by an abundant supply of water, by large, well-constructed, trapped sewers, and by domestic habits of cleanliness: but it is difficult to perceive how volatile impurities can be removed, and how a stream of uncontaminated air can be supplied where the sun cannot heat the earth and air, where there are no open squares, or the streets are narrow, or the houses are only separated by courts, or built in *cul de sac*." 112.

The fact of the greater insalubrity of cities, suggesting itself, as it has ever done, to the common observation and common sense of men, is now stamped by the authority of statistics, and acquires a degree of precision and specification which must ultimately prove highly useful. The next point is to take the country or the town separately, and ascertain the particular spots

most healthy or the contrary. This being done, and the circumstances of those spots being known, we arrive at the causes of disease, and are directed towards its prevention.

Mr. Farr takes thirty-two metropolitan districts, and examines the mean annual mortality of females from the 1st July to 31st December, 1837, excluding the deaths in hospitals. It appears that, in Whitechapel, the mortality is highest, the annual deaths per cent. being 3·908; while, in St. George, Hanover-square, it is lowest, the deaths being only 1·785 per cent. But it is singular (and, to our minds, carries the conviction of the existence of some fallacy) that the city of London is almost as healthy as St. George, Hanover-square, being numbered at 1·980; while Kensington, healthy as it is generally thought, is set down at 2·190. Can the anomaly depend on any arrangement in the City for disposing of its poor, or in the country residences of its denizens? We throw this out as a hint, for we feel staggered by the seeming anomaly.

It will be found, says Mr. Farr, *cæteris paribus*, that the mortality increases as the density of the population increases; and where the density and the affluence are the same, that the rate of mortality depends upon the efficiency of the ventilation, and of the means which are employed for the removal of impurities.

We quote the following brief table, and the remarks which follow it.

TABLE H.

Exhibiting the MEAN MORTALITY, in Three Groups, of the Thirty-two Metropolitan Districts.

Districts.	Square Yards to One Person.	Annual Rate of Mortality per 100.	Annual Rate of Mortality per Cent. by Diseases of						
			The Epidemic. Class.	*Typhus.*	The Nervous System.	The Respiratory System.	*Phthisis.*	The Digestive Organs.	Other Classes.
1 to 10, (mean)	57	3·321	·991	·324	·543	·822	·478	·208	·758
11 to 20, „	78	2·839	·701	·205	·467	·768	·451	·197	·706
21 to 30, „	217	2·163	·485	·107	·369	·588	·354	·155	·567

The mortality then increases with the density, yet the densest districts are not invariably the most unhealthy.

Unions or District.	Area in square yards to one person.	Annual rate of Mortality per cent.
St. James, City of London, Strand (mean)	24	2·1
Shoreditch, Bethnal Green, Bermondsey (mean)	60	3·1

The necessary deduction from the double series of facts, then, is that the mortality has a tendency to increase as the density of the population increases,

but that the unhealthful tendency can be counteracted by artificial agencies. In other terms, the mortality of cities in England and Wales is high, but it may be immeasurably reduced. A good, general system of sewers; the intersection of the dense, crowded districts of the metropolis by a few spacious streets; and a park in the East end of London would probably diminish the annual deaths by several thousands, prevent many years of sickness, and add several years to the lives of the entire population. Similar improvements would have the same effects in the other cities of the empire. The poorer classes would be benefitted by these measures, and the poor-rates would be reduced; but all classes of the community are directly interested in their adoption, for the epidemics, whether influenza, typhus, or cholera,—small-pox, scarlatina, or measles, which arise in the East end of the town, do not stay there; they travel to the West end, and prove fatal in wide streets and squares. The registers show this; they trace diseases from unhealthy to healthy quarters, and follow them from the centres of cities to the surrounding villages and remote dwellings." 116.

The rich, in this country, will only look after the poor, when they find it their interest to do so. That case seems to be pretty well made out already. The poor are costing the other classes a smart sum in purse and person, and what with troops, constabulary, fever-hospitals, and fevers, the account is running up pretty handsomely. So the legislature will try its hand at a nostrum anon.

In the unhealthy districts of the metropolis, the mortality from the epidemic class of diseases is higher than the mortality from diseases of the respiratory system; in the healthy districts on the contrary, the mortality by the former is lower than the mortality by the latter class of diseases.

Annual Rate of Mortality per Cent.

Districts.	From the Epidemic class of diseases.	From diseases of the Respiratory Organs.	Absolute Mortality from all causes.
1—10 (unhealthy) . .	.99	.82	3.32
11—20	.70	.77	2.84
21—30 (healthy) . .	.48	.59	2.16

The reason of this is obvious; diseases of the epidemic class increase more rapidly than diseases of the respiratory system in unhealthy localities.

Mr. Farr, after offering some further tabular data, remarks that it may be laid down as a general principle that wherever the proportion of deaths from phthisis, compared with the total deaths, is high, the absolute mortality is low, and that the absolute mortality from phthisis itself is low. Attention to this fact will obviate several practical errors, such, for instance, as sending consumptive patients to the West Indies. The deaths out of the living express the real tendency to phthisis.

	Districts 1—10.	Districts 11—20.	Districts 21—30.
Proportion of deaths by phthisis in 100 *deaths.*	14.4	15.8	16.4
Annual deaths by phthisis out of 100 *living*	.478	.451	.354

Such are the facts in this Report to which we have thought it right to

direct our readers' attention. They are fraught, we conceive, with a high interest. Yet they are only the "beginning of the end." We may expect much more that is valuable from the same quarter. We trust that the Registrar General will deem the furtherance of medical science one great object of his office, and we are sure that the profession will cordially express its sense of the zeal and the intelligence of Mr. Farr.

II. SICKNESS AND MORTALITY OF TROOPS IN BRITISH AMERICA.

Our readers will remember that, in our last Number, we devoted a large amount of space to the medical returns from our troops in the Mediterranean. We postponed the examination of the Reports from British America, and to them we now beg to direct attention. We believe there can be but one opinion on the value of Reports of this description. To their influence medicine will assuredly be indebted for the correction of some errors and the establishment of some truths. Already it has been proved how erroneous is the idea, how pernicious the practice of sending invalids with pulmonary affections to the Mediterranean. It will probably come out that such patients receive as much injury as benefit from transplantation to *any* warm climate.

The stations occupied by our troops on the Continent and Coast of North America from four Military Commands:—

I. The Bermudas.
II. Nova Scotia and New Brunswick, including Cape Breton and Prince Edward's Island.
III. Upper and Lower Canada.
IV. Newfoundland.

1. *The Bermudas.*

These islands lie about 600 miles to the east of South Carolina, in latitude 32° 25′ N., longitude 64° 50′ W., and are said to exceed 300 in number, but most of them are barren rocks; four only are of sufficient importance to be garrisoned by troops, viz., St. George's, the Main, Somerset, and Ireland Island, and to these the Reporters confine themselves.

Compared with the West India Islands, the Bermudas are by no means elevated, the highest point not exceeding 200 feet. They are rocky and very destitute of soil, which in no part is more than two or three feet in depth, and generally consists of the debris of marine shells mixed with sand and vegetable mould. The substratum is a white porous rock, called "Bermuda stone," which is easily worked, but on exposure to the air becomes hard and of a blueish colour.

Though the surface is apparently so unfavourable to vegetation, a considerable part of these islands, particularly on the southern side, is covered with forests of lofty cedar.

In the larger islands are several lagoons or marshes, some of them communicating with the sea.

The climate of the Bermudas has been described by some authors as a perpetual summer. This description however, appears to be rather overstrained; compared with the climate of northern regions, or even of the

adjacent coast of America under the same latitude, it is certainly uniform; but the summer is exceeding hot, even more so than in the West Indies, probably attributable to the light and scanty nature of the soil, which, being speedily divested of vegetation by the influence of solar heat and the absence of moisture, reflects the sun's rays from its arid surface with increased intensity. The absence of the regular trade winds, which serve to modify the heat in the West Indies, has by some been supposed another cause of the high range of temperature during the summer months, but this seems by no means probable in a climate where there is rarely a calm, and strong winds generally prevail from one quarter or other.

If the temperature of the summer months is compared with that of British Guiana, as shown in the West India Report, there will be found an excess of several degrees at this station, though 1500 miles further to the north.

We possess no exact measurement of the quantity of rain; the principal fall is between August and October, there are also very heavy showers in January and February, but seldom any during the summer months, and at that season dew is never deposited, though it is, occasionally, in winter. Southerly winds are most common during summer, and are said to be damp and oppressive; those from the north-east frequently blow with great violence during winter, and are dry, cold, and in many instances too keen for invalids. Winds from the west and north-west are most common in spring and autumn, and when from the latter point are generally accompanied by heavy falls of rain or thunder-storms.

The principal military station is at the town of St. George, situate on an island of the same name, about three miles in length, but in no part exceeding half a mile in breadth. It may be termed the capital of the Bermudas, and lies in a low confined situation near the eastern extremity of the island, at the foot of some high grounds which form a kind of amphitheatre around it, and, by impeding ventilation, add materially to the temperature.

From the table of Admissions into Hospital and Deaths, from 1817 to 1836 inclusive, it would appear that among every 1000 troops employed in this Command, 1310 cases of sickness have occurred in the course of the year, that is, every soldier has on an average, been under treatment for some disease or other once in nine months. But, in point of fact, the sickness has been greater, in consequence of a deficiency in the returns.

The deaths during these 20 years have averaged 32⅓ per thousand of the strength annually, a very high ratio of mortality in a climate generally esteemed healthy; but a considerable part of this is attributable to the yellow fever of 1819, by which a fourth part of the force was cut off in a couple of months. Even deducting the extra mortality for that cause, however, the average of the other years considerably exceeds that of troops in Great Britain or the Mediterranean.

The principal forms of sickness have been diseases of the stomach and bowels, 415 per thousand annually—abscesses and ulcers, 191 per thousand—fevers, 136 per thousand—wounds and injuries, 135 per thousand—diseases of the lungs, 126 per thousand.

Fevers.—If the sickness and mortality by yellow fever in 1818 and 1819 be excluded, as that disease is comparatively of rare occurrence in these

islands, the other types of fever will be found less frequent and less productive of mortality than at any of the Mediterranean stations; and it is especially worthy of remark, that notwithstanding the numerous marshy situations in different parts of this island, fevers of the intermittent type are almost altogther unknown: the only prevalent form is the common continued, which is observed in every climate and is seldom of a fatal character.

On the yellow fever we need say nothing, except that the usual difficulties are apparent in determining it's origin.

Eruptive fevers are exceedingly rare, only two cases having occurred among all the troops in the course of 20 years.

Diseases of the Lungs.—"Though this class of diseases, when taken in the aggregate, does not appear to be very prevalent in these islands, yet the most dangerous of them, viz., inflammation of the lungs and consumption, are decidedly so, and hence the above ratio of mortality is unusally high, being 8 7-10 per thousand of the strength annually, which is more than among troops in the United Kingdom, or any of the Mediterranean stations.

This appears more remarkable when we consider the uniformity of temperature at the Bermudas during a great part of the year, and the absence of those extremes of cold to which such diseases in northern latitudes are frequently attributed. It is sufficiently demonstrative of the erroneous nature of the ideas generally entertained on this head, particularly as regards consumption, that 9 per thousand of the troops at this station are attacked annually by that disease, of whom nearly three-fourths die before an opportunity offers for their removal, while in Great Britain the proportion attacked annually is but 6 4-10 per thousand, and we shall presently have occasion to observe, that even in the most inclement regions of British America the proportion is equally low.

Inflammation of the lungs, too, is exceedingly prevalent, without any perceptible cause in the climate to induce it; catarrhal affections and the other diseases of this class exhibit much the same degree of prevalence as among troops in the Mediterranean."

Diseases of the Stomach and Bowels.—On an average nearly one-half of the troops are attacked by diseases of the bowels annually, which is a larger proportion than even in the Windward and Leeward Command, though they are fortunately less severe in their character. This class of diseases is exceedingly prevalent here in every form, and in particular inflammation of the stomach, which elsewhere is of rare occurrence, has been so common, that in 1825 and 1826 a seventh part of the force was attacked by it. Their prevalence is attributed to the inadequate supply of fresh provisions.

Delirium Tremens is very common—drunkenness extremely prevalent.

Venereal Affections are very rare; nor can this arise, as at some stations, from any sanatory regulations to prevent the propagation of the disease, such precautions being unknown.

2. *Nova Scotia and New Brunswick.*

The Peninsula of Nova Scotia, as it is generally termed, extends in an oblong shape about 280 miles in length, and from 50 to 100 in breadth. Being bounded on the south-east and south by the Atlantic, on the west by the Bay of Fundy, and on the north by Cape Breton and a portion of the

Gulf of St. Lawrence, its position is perfectly insular, except where a strip of land, only eight miles in breadth, connects it on the north-west with the province of New Brunswick. The superficial area of this peninsula has been computed at 15,600 square miles, of which, however, not a twentieth part is cleared or under cultivation. Its physical aspect, like that of all the settlements in British America, is by no means mountainous; a chain of hills extends along the western side, from which a loftier range branches off to the north, but neither of them are of any great elevation, the highest point not exceeding 800 feet. In other parts the ground is diversified by numerous though slight undulations, and, except along the banks of the rivers and at the heads of some of the bays, level tracts of any extent are seldom to be met with.

The south-east coast, facing the Atlantic, is bold, rocky, and sterile, but at the mouths of rivers and creeks, occasionally intersected by small patches of alluvial soil.

The south and west coasts are deeply indented with numerous bays and lagoons by the action of the Gulf Stream, which, rushing upon this portion of the American continent in tides of from 60 to 70 feet, overflows the country to the distance of several miles, and converts the mouths of streams fordable at low water, into extensive arms of the sea where whole fleets might ride at anchor.

As a necessary consequence of this phenomenon, a very considerable portion of the banks of the rivers and the heads of the bays on that side of the peninsula are constantly in a marshy state, and as these tides are thickly impregnated with alluvial soil, owing to the force with which they are impelled against the adjacent continent, they leave on their reflux a considerable deposit of mud, which, by the aid of embankments, is converted into rich meadow land; and even where no such care has been taken, spontaneously supplies a coarse winter fodder for cattle.

The western coast and interior of the Peninsula appear to be rife in the causes of intermittents, yet the inhabitants enjoy an almost total exemption from them, and, indeed, a remarkable degree of health.

The climate of this province is distinguished by great and sudden alternations of temperature, such as, even in the changeable climate of Britain, appear almost incredible; though Nova Scotia is in this respect less remarkable than some of the North American stations, the thermometer has been known to exhibit a difference of 52° in 24 hours. The atmosphere is also exceedingly moist, the showers heavier and more frequent than in Britain, and fogs are common along the sea-coast throughout the year, but particularly in May and June, though they seldom extend any distance into the interior.

Though the winter is no doubt exceedingly severe, as compared with that of Great Britain, yet the cold is not by several degrees so intense as in that part of the American continent further to the west, neither is the heat of summer so great, probably attributable to the insular situation of the province having a tendency to modify both these extremes; the thermometer is seldom lower than 6° or 8° below Zero in winter, or above 88° in summer, but we possess no table sufficiently accurate to exhibit its precise range for a series of years.

The prevailing winds are from the east in spring, from the south or south-

west in summer and autumn, and from the north or north-west in winter, at which period a change to any other quarter is generally followed by a rapid rise in the thermometer, accompanied by much rain or snow.

From December to the end of March the ground is generally covered with snow. Summer follows winter in such rapid succession, that there is scarcely any spring, but the autumn is pleasant and sometimes of long duration, as towards its termination, there is frequently a continuance of what is termed the Indian summer, till December again ushers in the winter with its usual severity.

Such is the description which the Reporters offer of Nova Scotia. The military stations are Halifax, on the south-east coast—Windsor, Annapolis, and the adjacent islands of Cape Breton and Prince Edward. We have not space for the medical topography of these localities, suffice it to say, that though in many there are marshy grounds yet there is no evidence of the influence of malaria.

The Province of New Brunswick forms a section of the North American continent, extending between 45° and 48° north latitude, and 63° 47′ and 67° 53′ west longitude, and comprising nearly 14 millions of acres.—Towards the north-east it is united to Nova Scotia, by the narrow strip of land before referred to, but differs from that peninsula in being composed of bolder undulations, which in some parts assume a mountainous character; cultivation has also made less progress, the whole province, with the exception of a few spots along the banks of the principal rivers, being still covered with dense forests.

The troops are principally quartered at St. John's and Fredericton, both situated on a broad and extensive river, which intersects the province in a north-westerly direction. St. John's is built on a rugged rocky peninsula, where this river falls into the Bay of Fundy: the soil in the neighbourhood as well as along the sea-coast, to the distance of several miles, is dry and stony, and in the vicinity of the town tolerably well cultivated; but dense forests still occupy the back-grounds at a short distance from the river.

Fredericton, the head-quarters of the regiment in this province, lies about 80 miles higher up the river, on an alluvial strip of land about two miles in length, and so low as to be much subject to inundations. The streets during rainy weather are almost impassable, and the banks of the river generally wet and muddy. Cultivation has made very little progress in the vicinity, which is principally covered with dense forests of hard wood. The soil is either alluvial, mixed with gravel, or of a tenacious clayey nature, and by no means ready to absorb moisture. Notwithstanding the apparently unfavourable nature of the locality, both troops and inhabitants enjoy excellent health and a marked exemption from all diseases of a febrile nature.

The climate of New Brunswick, particularly at Fredericton, is not liable, during winter, to such sudden vicissitudes as that of Nova Scotia. The frost is steadier, and the winter more severe, as well as of longer duration; the heat of summer is also more intense, and the thermometer, in the course of one year, has been known to range from 96° above to 42° below zero, though these extremes are considerably beyond the usual average.

As in Nova Scotia, fogs are common along the sea-coast of New Bruns-

wick, particularly in the months of May and June, but seldom extend any distance into the interior, nor do they appear in the slightest degree prejudicial to health, the stations most exposed to them being quite as free from sickness as any other part of the Command.

It appears, from tables furnished by the Reporters, that the sickness and mortality of the troops in Nova Scotia and New Brunswick, correspond closely with what is found to be the case amongst the Dragoon Guards and Dragoons of the United Kingdom. The annual ratio of admissions per 1,000 of mean strength in the Province is 820,—and in the United Kingdom 929. The annual ratio of deaths in the former is 14.7—and in the latter 14. Yet, in addition of the seemingly insalubrious climate of these American stations, the price of spirits is so extremely low as to admit of the soldier indulging frequently in intemperance, even on the limited amount of his surplus pay.

Fevers.—Almost all the fevers are of the common continued type which is found to prevail in every climate. Intermittents are so rare that not two cases occur among the whole force annually, and these have in almost every instance been traced to individuals who had previously suffered from them in Upper Canada. Though such an exemption might be expected for the troops at Halifax, owing to the arid, rocky nature of the soil, and the absence of all causes likely to induce that form of fever, yet it is singular that the same exemption should extend to the troops and inhabitants at Windsor, Annapolis, Fort Cumberland, and Fredericton—situations abounding with those supposed sources of malaria, which, in the provinces of Upper Canada, under a similar temperature, are found, or at least are supposed, to produce fevers of the remittent and intermittent type. On that subject the medical officer at Fredericton particularly remarks that, though the station is on the alluvial bank of a large muddy river, surrounded by forests interspersed with swamps, with vegetation in abundance, and in every shape undergoing decomposition, yet the diseases attributed to malaria are scarcely known; and the same subject is frequently adverted to with equal surpise by other officers who have served at that station and on the western coast of Nova Scotia, where the agencies supposed to generate malaria exist in such abundance.

This fact must be received, startling as it is. The induction, however, which lays intermittent fever to the operation of marsh miasma, is too strong to be shaken by many such exceptions. Some disturbing circumstance exists in this province which ought to be carefully sought after. That some will be ultimatly found we cannot doubt.

Diseases of the Lungs.—The Reporters observe that, notwithstanding the severe winter and sudden atmospherical vicissitudes peculiar to Nova Scotia and New Brunswick, diseases of the lungs are less prevalent in the proportion of 125 to 148, and less fatal in the proportion of 7 1-10 to 7 7-10. It is true the results for the United Kingdom embrace a period of seven years only, while those of Nova Scotia and New Brunswick extend over twenty years; but, even if the same period is taken for both, the admissions will be found lower in the proportion of 120 to 148, and the deaths in the proportion of 7 5-10 to 7 7-10. Were any other proof necessary to show how little

even the most acute of these diseases seems to be aggravated by such atmospheric influence, it would be found in the relative proportion treated for inflammation of the lungs and pleurisy in this Command, compared with the Mediterranean and Bermuda—climates remarkable for their mild and equable temperature.

Diseases of the Liver.—The prevalence of this class of diseases is almost the same as among the Dragoon Guards and Dragoons serving in the United Kingdom, and the mortality is only one half as high. This fact tends to throw very considerable doubt on the supposed influence of spirituous liquors in inducing affections of the liver, at least in a cold climate; for, owing to the low price of these in Nova Scotia and New Brunswick, there are few stations where intemperance is carried to a greater extent; yet not only do the troops suffer less from diseases of the liver than at home, but the proportion of deaths is only two-thirds as high as among persons insured in the Equitable Office, who, from their rank in life as well as the caution exercised in their selection, are by no means likely to be addicted to that vice.

There seems to us a fallacy in the latter observation. Soldiers are men in the prime of life, selected from the healthiest. Insurers are by no means in the prime of life, and whatever "caution" may be used, are *not* by any means of the healthiest. The soldier is invalided for chronic disease that *will* prove fatal bye and bye—the insurer sticks to the office. We must be excused for remarking that we fear this is not the only medical fallacy involved in these Reports. The civilian or the mere soldier who begins to *reason* on diseases, is not unlikely to make blunders. And if those blunders are founded on figures they will probably prove all the worse.

Epidemic Cholera.—The following statements will be found as usual to support both the contagious and anti-contagious hypothesis of the origin of this disease.

The troops in this Command escaped this disease in 1832, when it raged with great severity in Canada, but in July 1834, it broke out among those at Halifax under the following circumstances.

On the 20th of that month a vessel from Quebec, where the cholera was then prevalent, entered the harbour of Halifax. During the voyage the crew had suffered severely from bowel complaints, and one of them was admitted into the poor-house labouring under symptoms of cholera, of which he died. About a week afterwards another fatal case occurred in a person occupying the same ward, and by the 7th August the disease began to be very general among the inmates of the establishment. The first cases were observed in the town about the 10th of August, from which period till the 24th the epidemic made rapid progress, and continued with various degrees of intensity till the end of September. The extent of its ravages cannot be accurately ascertained, but it is supposed that throughout the town and suburbs about 600 died. The number admitted into the civil hospitals was 1,020, and the deaths 382. The infirm, the drunken, and the dissipated were its principal victims, though to this there were many exceptions.

Among the military, two cases of simple cholera had been noticed in the 96th Regiment, on the 24th and 31st July, but it was not till the 8th of

August that the first fatal case occurred. After that period it spread throughout the garrison; the Rifle Brigade suffered most, indeed, to such extent, that 18 deaths took place between the 21st and 25th of August. The corps was, in consequence, sent to Sackville, about 8 miles from Halifax, after which only four new cases occurred. The success of this experiment led to the same measure being adopted with the 96th and 83rd Regiments, who were removed to an encampment in the vicinity of the town, with the like good effect; the disease ceased both among the civilians and military about the end of September, though a few isolated cases continued to present themselves for some weeks after.

During the whole of this period bowel complaints of various kinds were exceedingly common, even among those who escaped the graver forms of the disease.

Though the circumstances under which the disease first appeared were such as to favour the idea of contagion, yet nothing occurred in the course of its progress to strengthen that supposition; and neither the medical officers, nor those in immediate attendance on the sick, suffered in a greater proportion than persons not so exposed.

Of 293 women attached to the different corps, 37 were attacked and 16 died, being almost exactly the same proportion as among the soldiers. Children were remarkably exempt, for of 560 in the garrison only 16 were attacked, and 6 died. The officers also suffered but little; out of a strength of 60 only 4 were attacked, all of whom recovered.

3. *Canada.*

The Provinces of Upper and Lower Canada are included in this Command, of vast extent, and embracing great varieties of surface and of climate. It is impossible for us to do more than just hint at them.

The Province of Lower Canada lies between 45° and 52° North Lat. and 57½° and 80° West Long., and may be said to extend from the shores of the Atlantic to 55 miles beyond Montreal, comprising an area of nearly 260,000 square miles. Of these 3300 are covered by lakes and small rivers, and 52,000 by the extensive surface of the St. Lawrence; leaving upwards of 200,000 square miles of land territory, of which not more than a fortieth part is under cultivation, the rest being still in its primitive state, covered with forests and over-run with dense vegetation of every description.

The climate of the lower province is distinguished for the extreme severity of its winter, and the sudden alternations of temperature to which it is subject; so remarkable are these, that at Quebec the thermometer has on some occasions been known to fall 70° in the course of 12 hours; the cold weather sets in as early as November, and from the end of that month till May, the ground remains covered with snow to the depth of 3 or 4 feet. During this period there is generally a clear dry atmosphere, with light north-westerly winds or calm weather, and the sensation of cold is by no means so acute as might be anticipated from the low range of the thermometer; but when the wind blows from the N. E., especially with any degree of violence, the intensity of the frost becomes so excessive, that on several occasions the mercury, frozen in the thermometer, has no longer served to record the ex-

treme reduction of the temperature. The general range, however, during winter, is from the freezing point to 30° below zero.

Though there is seldom a complete thaw in winter, yet occasionally, when the wind changes to the southward and eastward, the usually clear and serene sky becomes overcast, the atmosphere damp, and a considerable rise in the thermometer takes place, accompanied by thick fogs and heavy falls of snow. The seasons do not glide imperceptibly into each other as in more temperate regions; summer succeeds so rapidly to winter that the thermometer sometimes rises to 80° at mid-day before the ground is clear from its covering of snow.

Summer commences about the middle of May, and is usually ushered in by moderate rains and a rapid rise in the temperature, though the nights still continue cool; but during June, July, and part of August, the heat is great, indeed often as oppressive as in the West Indies, the thermometer frequently attaining to 95° in the shade; in these months the rain is never excessive nor of long duration; the earth, already saturated by the melting of the snow, requires no further supply of moisture to aid the rapid progress of vegetation.

Upper Canada may be said to extend from the Hudson's Bay territory, in latitude 46° on the north, to that of the United States, latitude 42° on the south; and from the river Ottawa and boundary of Lower Canada on the east, to the distant shores of the Pacific.

A province of such extent as Upper Canada necessarily presents considerable diversity of climate, the intensity of the cold and duration of the winter gradually diminishing from the lower extremity of the province along the borders of Lakes Ontario and Erie. About Amherstberg, at the head of the latter, the climate is said to be much the same as in Britain, except that the extremes of cold and heat are greater; while in proceeding northward from the shores of these lakes, even the distance of 60 or 70 miles is found to produce a marked increase, both in the severity of the winter and its duration. Compared, however, with Lower Canada, it is, in general, shorter by at least two months, while spring and autumn are lengthened in a corresponding proportion. The frost is, perhaps, for a few days as intense, but never of such duration; and thaws occur at short intervals. Snow seldom falls in any quantity till towards the end of December, and usually disappears in March; and the severity of the winter is said to have perceptibly diminished of late years, as the surface has been cleared and brought under cultivation.

The climate is generally more equable than that of the lower province; and though the thermometer ranges higher by a few degrees, the summer heat is not so oppressive, probably owing to the influence so vast a body of water is likely to exert in modifying the temperature, and to the cooling breeze which prevails along the lakes during the day.

Condition of the Barracks and Hospitals.—The Reporters observe that the condition of the barracks and hospitals has been a frequent subject of complaint by the medical officers, particularly as regards the state of repair, and the perishable nature of the materials of which these buildings have been

constructed. We have adverted to this circumstance, because in such a climate it is obvious that the most complete accommodation is absolutely requisite to protect the soldier against the inclemency of the weather. The space allotted to him in barracks, too, is described as being in many instances inadequate for healthy respiration. By some recent measurements, supplied by the officers of the medical department, the maximum allotted to each soldier is calculated at 300 cubic feet, while the minimum does not exceed 216 cubic feet, being little more than half what is deemed essential to health in the prisons of this country.

In all other respects the soldier would appear to have no reasons for complaint.

Sickness and Mortality.—It appears that among every thousand soldiers serving in Canada 1097 cases of sickness have occurred in the course of the year, being 168 per thousand more than among the Dragoon Guards and Dragoons serving at home. The deaths, as stated in the Medical Returns, have averaged 16·1 per thousand of the force annually, which is a medium between the ratio in Infantry Depôts and Cavalry Corps serving in the United Kingdom.

This calculation, however, applies only to the mortality caused by disease, as reported by the medical officers. The deaths stated in the War Office Returns, which include those from all causes, furnish very different results. Those returns make the average ratio of mortality about 20 per thousand annually, which would lead to the conclusion, that the climate of Canada operated much more prejudicially to the health of the troops than that of their native country; but on investigating the causes of this mortality, the greater number of the deaths omitted in the Medical Returns are found to have arisen from the vices and acts of the unfortunate victims themselves, or from circumstances in no way connected with climate. It is remarkable, for instance, that no less than 122 deaths are ascertained to have taken place by drowning, exclusive of those in the Artillery, which would probably swell the number to 150, or about an eighth of the total mortality. Most of these men lost their lives in attempts to cross rivers or creeks for the purpose of deserting, a crime of very frequent occurrence throughout this Command, particularly at stations in the vicinity of the United States.

The Upper Province would seem to be healthier than the lower. The principal diseases are fevers, diseases of the stomach and bowels, diseases of the lungs, wounds and injuries, abscesses and ulcers, and the venereal.

Fevers.—The annual ratio of admissions for fever per 1000 of mean strength have been 214—of deaths, 2·4. These results exhibit a remarkable prevalence of fevers in Canada compared with what has been observed in Nova Scotia or New Brunswick, the proportion of admissions being at least thrice as high; this feature may be said to extend over every form of the disease, but particularly the intermittent, of which we find several thousand admissions recorded in the former, while scarcely one indigenous case has ever been known in the latter Command, though the general features and climate are in many respects so similar.

The localities most subject to the disease are in Upper Canada. The prevalence of intermittent fevers in Upper compared with that in Lower

Canada, is as 178 to 26. It is necessary, however, to keep in view that all the admissions from intermittent fever in Lower Canada did not originate there, by far the greater proportion of them having occurred among soldiers who came from the upper provinces while labouring under that disease, or who had acquired a predisposition to it during a previous residence there. Indeed, except at Isle aux Noix and the other small stations along the banks of the Richelieu, fevers of the intermittent type are rarely indigenous in Lower Canada; at Quebec they are said to be unknown, and at Montreal nearly so.

In Upper Canada these diseases prevail most among the troops stationed along the course of the great lakes from Kingston to Amherstberg; they are almost unknown at Penetanguishene and By Town. The settlers who reside even at the distance of a few miles inland rarely suffer from them; yet the districts enjoying this exemption are in many parts covered with lakes, intersected by streams, and abound in marshy ground, decayed vegetation, and all the other agencies to which the origin of this type of fever is generally attributed.

These diseases, too, are said to be comparatively rare wherever the surface is covered with dense forests, even though the ground is wet and marshy. The vicinities of lands recently cleared are most subject to them, particularly meadows or open patches of the forest, which, though denuded of trees, have not been brought under cultivation; it would appear, too, that their prevalence is diminishing with the progress of agricultural improvement; for it will be observed on reference to the Abstract of Diseases, No. III. of Appendix, that since 1831, a period during which this province has been rapidly advancing in wealth and population, and many important changes have taken place in the vicinity of the stations occupied by the troops, intermittents have become comparatively rare, the proportion attacked having been scarcely one tenth part so high as the average previous to that period.

The febrile diseases of Upper Canada are by no means uniform in their prevalence; even in years when the degree of temperature, fall of rain, or extent of vegetation, have been much the same, the proportion of cases, particularly of intermittents, is very different. A general impression exists that their prevalence is in some measure dependent on the height of the waters in Lake Ontario, which attain their maximum in June or July. But the Reporters show by statistical returns that such is not really the case.

Though there exists but little intermittent fever in the lower provinces, the common continued form is very prevalent, about 131 per thousand of the force being attacked by it annually; this is one half more than the proportion in Upper Canada, and nearly twice as much as in the United Kingdom or the maritime provinces of Nova Scotia and New Brunswick. Owing to this circumstance, though fevers are on the whole more prevalent in the upper province, they cause exactly the same degree of mortality as in the lower, the greater number of cases in the former being counterbalanced by the more fatal character of those which appear in the latter.

Diseases of the Lungs.—Though the degree of mortality is much the same the proportion of admissions from this class of diseases is greater than in Nova Scotia and New Brunswick, principally owing to the more general prevalence of inflammation of the lungs and catarrhal affections. This pe-

culiarity does not extend, however, over the whole of Canada, but is principally confined to the lower province.

"The following results afford another interesting proof how little the tendency to consumption is increased, either by intensity of cold, or sudden atmospherical vicissitudes :—

	Aggregate Strength at each Station.	Total Attacked by Consumption.	Ratio per 1000 Attacked Annually by Consumption.
Bermuda for 20 years...	11,721	103	8.8
Gibraltar for 19 years...	60,269	394	6.5
Canada for 20 years.....	61,066	402	6.5

In the two former climates, the thermometer rarely falls to the freezing point, and its fluctuations are comparatively trifling ; in the latter, the cold is often so intense as to freeze mercury, the variations sometimes exceed 50° in the course of a few hours, and the soldier in passing from his heated guard-room to his night-duties in the open air, is not unfrequently exposed to an immediate change of temperature exceeding 100°."

Epidemic Cholera.—A very circumstantial and interesting account is given of the progress of this epidemic. The conclusion, perhaps, contains the pith of the matter.

"These circumstances, combined with the fact of several persons having died from the disease on their passage from Ireland, in each of the years when it appeared, led to the belief of its having been imported and subsequently communicated by contagion ; various precautionary measures were in consequence adopted to prevent its propagation, and strict quarantine regulations were enforced, both as regarded the troops and inhabitants; but though in some instances these were apparently effectual, in others they proved of little avail, and the contagious nature of the disease was subsequently rendered extremely questionable from the circumstance, that neither the physicians nor those in constant attendance on the sick, exhibited any peculiar liability to it.

Of course it is impossible, in a limited report of this nature, to enter fully on all the facts and arguments bearing on the important and much-disputed topic of contagion ; we can only say that all that has been adduced on either side seems to fall far short of absolute proof, and even those who have had the best opportunities of forming accurate opinions, by watching the progress of this disease are forced to admit that its origin is still involved in mystery, or at least, that the contrariety of results can only be reconciled by supposing that under some circumstances it may be contagious, while in others it may prove the reverse."

The following statement is not very flattering to physic, yet, we think, not far from the truth.

One of the most extraordinary features of this epidemic is, that the proportion of deaths to recoveries has been very nearly alike, in all the military Comman 's of which the medical records have been investigated, for instance :—

	Attacks.	Deaths.	Proportion of Deaths to Attacks
Among Cavalry in the United Kingdom 1832, 1833, and 1834	171	54	10 in 32
„ Troops in Gibraltar, 1834	459	131	10 „ 35
„ „ Nova Scotia, &c. 1834	210	59	10 „ 35
„ „ Canada, 1832	259	94	10 „ 28
„ „ Canada, 1834	97	33	10 „ 29
„ Black Troops at Honduras, 1836	62	20	10 „ 31

Thus, under all the modes of treatment which may have been adopted on these different occasions, the proportion of deaths to recoveries has not varied above one-fourth, showing that the remedial measures hitherto employed can have had little if any effect in counteracting the fatal character of the disease.

In both these years, when this epidemic prevailed, the native Indians suffered from it to the same extent as the white population. At three settlements from which returns were received, about a twelfth part of the population died in 1832, and about half that proportion when it again prevailed in 1834. Although their principal remedy consisted in swallowing large quantities of charcoal mixed with lard, almost exactly the same proportion recovered as among the white inhabitants of the towns, who possessed every advantage which the aid of medical science could suggest."

It would appear, from statements of this description, that physic had little influence on the disease. We believe this to be far from the fact, and the next paragraph will explain our meaning.

"Not a single officer died, and only four were attacked during the first, and three during the second epidemic. The same peculiarity was observed during the prevalence of this disease in Nova Scotia, in 1834; and in Gibraltar there were but two admissions and one death among the officers, though there were 459 admissions and 131 deaths among the troops. This leads to the inference that though little can be done to ameliorate the character of the disease when allowed to arrive at an advanced stage, yet that a generous diet, regular habits, and the degree of attention which persons in the higher ranks of life are likely to pay to its premonitory stages, have a powerful effect in diminishing their liability to its influence."

In fact we are of opinion that physic can save many lives in an outbreak of epidemic cholera. The bad cases are not cured but may be prevented by it, and more especially by the treatment of the premonitory diarrhœa. Of this we have been satisfied by personal experience, as well as by the experience of others.

Delirium Tremens.—In Nova Scotia and in Canada, there is a similar prevalence of *delirium tremens* (resulting from intoxication), with the exception that in Canada the cases have become less numerous and less fatal since 1832, indicating, it is to be hoped, a diminution in the vice of intemperance, whereas in Nova Scotia they appear to be on the increase.

Rheumatic Affections.—It is a striking circumstance, that in a climate of which the temperature in winter is so low, and liable to such sudden alternations as that of North America, the proportion of rheumatic affections should be less than in the United Kingdom. It is even lower than in the Mediterranean or Bermuda, though there the thermometer rarely falls to the freezing point, and the atmospherical vicissitudes are comparatively trifling. Observations recently made by the Medical Association of Great Britain on the prevalence of rheumatic affections in different countries of this kingdom have given similar results, and established that these diseases are less under the influence of atmospheric agency than has generally been supposed.

Venereal Affections are only about half as prevalent as in the United Kingdom; and a reference to the Abstract of Diseases, No. III. of Appendix, shows, that in Canada syphilis has of late years become almost extinct, not more than three in every thousand soldiers having been treated for it annually, and of these the greater proportion were recruits who had contracted the disease in this country. So far as we can learn, there are no sanatory regulations to prevent its propagation, but probably at the remote stations opportunities of contracting it are comparatively rare, to which circumstance also may be attributed the marked exemption of the detachments in the upper provinces, among whom cases are seldom or never observed.

4. *Newfoundland.*

This island lies on the north-east side of the Gulf of St. Lawrence, and adjacent to that part of the American continent termed the coast of Labrador. Its extreme length is 420 miles, and extreme breadth 300; but of this extensive territory the greater part is as yet unexplored. The few tracts visited by Europeans have been found hilly, and sometimes even mountainous, varied by extensive plains covered with grass or low stunted bushes, and intersected by numerous rivers and lakes. The forests are not so dense, nor the timber of such magnitude as in the Canadas, both soil and climate being less favourable to vegetation.

Towards the south-east extremity, the deep bays of Trinity and Placentia intersecting the island in opposite directions cut off a peninsular section about 78 miles in length, and 75 in breadth, where the British population principally reside in several small towns and villages along the shores of the numerous bays by which that portion of the island is indented.

One of these bays between two high mountains on the east coast, and having a very narrow entrance protected by extensive fortifications, forms the harbour of St. John's, on the shores of which stands a town of that name, the capital of the island. In its vicinity are three forts where the troops are quartered.

The climate of the southern part of Newfoundland is similar to that of Nova Scotia, except that the summers are colder, of shorter duration, and liable to more sudden vicissitudes, owing to the melting of the icebergs on the coast, which exerts considerable influence on the temperature; the island has also been long noted for the frequent and dense fogs which prevail along its banks, and often continue during a great part of the summer. None of these agencies, however, seem to operate prejudicially on the health

of the inhabitants, among whom the mortality is on a lower scale than in any portion of the American continent.

From a return of the population, births, and deaths, for the years 1822, 1825, and 1827, it appears that the population was 55,001—the average of births 1,785—and the average of deaths 724.

"According to this table, the deaths are only 1 in 76 of the population—an exceedingly low ratio indeed, especially when it is considered that upwards of 20,000 are children under 15 years of age. As the inhabitants are scattered over a great extent of coast, several of the deaths may possibly have been omitted; but, even making all due allowance for that source of error, their rapid increase, without any material aid from immigration, furnishes sufficient proof that the climate, however unpleasant to the feelings, is highly favourable to the constitution.

Had we drawn our conclusion in regard to the climate, however, from the mortality among the troops at this station, we should have been led to very different conclusions."

It is only since 1825 that available returns have been obtained from the troops. Since that year a corps has been formed for service in this colony, consisting of three companies of Veterans, who, although for the most part aged or disabled, have been reported as fit for garrison duty. These, with a company of Artillery, have generally constituted the whole force.

From a table it appears that the mortality among the Veterans has been upwards of 41 per thousand annually on the average of the last 12 years, while that of the Artillery has been only 22 per thousand during the same period. The high ratio among the former may in part be accounted for by their advanced age, nearly one half being between 33 and 40, and the other half above that period of life; but it appears still more attributable to the immediate effects of intemperance, as the records of that corps furnish most startling evidence of the general prevalence and destructive consequence of this vice.

Of 100, the total, deaths in the Veteran Companies, from 1825 to 1832 inclusive, 42 were the *direct* effects of intoxication! When to this we add indirect destruction produced by other diseases, to which such drinking must have lent a helping hand, we have a very pretty commentary on the system of strong potations.

The Reporters add:—"The fate of so large a proportion of this garrison, by their own imprudence in the use of spirituous liquors, affords a striking illustration of the progressive effect and ultimate consequence of long-continued habits of intemperance. In Nova Scotia, for instance, we find that, though this vice prevails to a great extent among the troops, the mortality is as low as can be expected in any climate, even among persons of abstemious habits. But there the troops are, for the most part, men in the prime of life, whose excesses produce little sickness or mortality, while they have the advantage of youth on their side; but they are silently laying the seeds of disease in their constitution, and inducing premature old age and disability, so that by the time they attain the same advanced period of life as the Veterans, a repetition of excesses, which might formerly have been indulged in with comparative impunity, hurries them to an untimely grave.

In regiments of the line, the number of men at an advanced period of life being but small, the premature deaths caused by drunkenness are lost in the mass, and, as we have frequently stated, add little to the general mortality. It

is only when a corps is composed of men advanced in years that the ultimate consequences of this vice can be traced to their full extent, or so strikingly manifested as in the present instance."

It is obvious that, in order to form an opinion on the salubrity or otherwise of foreign stations, the amount of *invaliding* must be taken into the account.

Subsequent to 1824, and exclusive of 313, who, after being sent home invalided, returned fit for further service to their depôts or corps, the proportion discharged has amounted to 19 per thousand annually, being the average of the Mediterranean stations, and nearly the same as among the Dragoon Guards and Dragoons serving in the United Kingdom. These returns apply to the whole of British America, including Bermuda, Nova Scotia, the Canadas, and Newfoundland.

There is one important statement in reference to pulmonic affections. In British America, the ratio per thousand invalided annually for pulmonary affections has been 3·9—in Gibraltar 3·9—in Malta 5—in the Ionian Islands 2·8.

"It is thus manifest that in the mild climate of Malta one-fifth more are invalided for pulmonic affections than in British America—a sufficient reason, combined with what has previously been stated on the subject, to render extremely questionable the generally received opinions in regard to the influence of temperature in inducing or aggravating these diseases."

Greater Mortality in advanced Life in North America.

In all the North American Commands mortality increases with the advance of age much more rapidly than in the United Kingdom or Mediterranean. This is particularly observable in the Bermudas, where, though the ratio between the ages of 18 and 25 is much the same as among the Dragoon Guards and Dragoons in this country, it is, at the subsequent periods of life, more than twice as high.

So far as regards the Bermudas this may partly be accounted for by the circumstance, that in all warm climates the constitution appears to deteriorate rapidly with the advance of age. This will not, however, account for the same feature being manifested, though in a less striking degree, on the continent of North America; perhaps the repeated attacks of febrile diseases to which the troops in Upper Canada are subject as well as the general prevalence of intemperance, though not in themselves an immediate source of mortality, may, by tending to sap the vital energies, and inducing premature old age, ultimately lead to this peculiarity.

This corroborates the remark we made a little way back, that the seeming impunity with which ordinary causes of disease have been applied to troops, must be taken with reservation. They are resisted in the hey-day of life but they materially curtail its duration. It is obvious that two men may pass through the period of service, and each leave the army at the same time—the one with a constitution shattered and a few years only of life before him—the other hale and enjoying the ordinary probabilities of longevity. Such Statistical Returns as those before us take small account of this, a most important element in calculating the influences of climate.

Deductions from the Preceding Report.

a. Pulmonary Affections.—"Having, in the course of this Report, frequently adverted to the uniform degree of prevalence which, notwithstanding the dissimilarity of climate, has been found to exist in the proportion of pulmonary affections in Nova Scotia and Canada, compared with Malta and Gibraltar, it seems unnecessary here to recapitulate the evidence on that subject; but it may be proper to inquire whether there exists, in the moral or physical condition of the troops in the Mediterranean and American stations, any difference likely to have influenced the results on which that comparison has been founded.

In the last section of the West India Report we showed that these diseases, even under the high temperature of the tropics, prevailed to a greater extent than in the United Kingdom. But it may be argued that several circumstances, independent of climate, were there in operation to induce that peculiarity; for instance, the innutritive qualities of the diet, the limited and defective state of the barrack accommodation, and the general prevalence of intemperance, were all causes tending to affect the health of the troops in no inconsiderable degree. We are, therefore, led to inquire whether any deteriorating circumstances of a similar nature exist in the Mediterranean from which the troops in North America are exempt, and by which the tendency to these diseases may have been so far aggravated as to counterbalance the advantages otherwise resulting from its mild and equable climate.

So far, however, from this being the case, every circumstance has been more favourable to the troops in the Mediterranean. The barrack and hospital accommodation, in Malta and Gibraltar at least, is not only of a more substantial nature than in Canada and Nova Scotia, but nearly double the space is allotted to each soldier; the diet, with the exception of a greater issue of salt meat in Gibraltar during the winter months, is nearly the same, and the meals are regulated on similar principles. Intemperance, to which so much has been attributed as an exciting cause of these diseases, cannot be said to prevail to a greater extent in the Mediterranean than America, where the constant use of ardent spirits is likely to prove still more prejudicial than the low wines which form the principal medium of intoxication in the Mediterranean.

In all these respects, then, the troops in the Mediterranean have decidedly the advantage. We have yet to advert to another circumstance no less favourable to them: consumption, the most fatal of this class of diseases, is supposed to affect persons at an early period of life more than those of mature age. Now, owing to the frequency of desertion in North America, so many recruits have to be sent out from this country that nearly one-half of the force there is under 25 years of age, while in the Mediterranean, where so much necessity exists for large drafts from the depôts, the proportion under that period of life is only from a third to a fourth of the whole; consequently the composition of the force in the Mediterranean renders it much less subject to the influence of consumption, if not also of the other pulmonary diseases which frequently precede it.

When we find, notwithstanding all these circumstances apparently so favourable to the greater development of these diseases in Canada and Nova Scotia, that the troops there do not suffer from them to a greater extent than in the Mediterranean, it would manifestly be incorrect to attribute their prevalence in North America to the reduced temperature and sudden atmospherical vicissitudes incident to that quarter of the globe, seeing that the sufferings of the troops from these diseases are equally great in other climates where no such causes are in operation to induce them."

We would hint that the circumstance of so many young recruits being

sent to North America, is by no means adverse to immunity from consumption. That disease is more rife at an early age it is true, and were persons at that age taken *indiscriminately*, there would be some force in the reporter's argument. But the recruits are *picked* young men, especially selected for that physical constitution which is indisposed to phthisis. North America then has numerous fresh draughts of the non-consumptive. Climate does not shew the whole evidence of its work, because the old hands *bolt*—and it cannot knock down, at all events at once, the hardy novi homines. We repeat that these Returns and Captain Tulloch's medical observations must be taken with reservation.

b. Rheumatism.—"The caution necessary to be exercised in attributing to certain peculiarities of climate the prevalence of any class of diseases, is so strikingly exhibited by the proportion of Rheumatic affections ascertained to have occurred among the troops in different colonies, that the following abstract will best serve to illustrate our observations on this head:—

	Jamaica.	Nova Scotia, and New Brunswick.	Bermudas.	Malta.	Ionian Islands.	Gibraltar.	Canada.	Mauritius.	Windward and Leeward Command.	United Kingdom.	Cape of Good Hope.
Admissions from Rheumatic Affections annually per thousand of mean strength.....	29	30	33	34	34½	38	40	46	49	50	57

Thus we find that in the mild and equable climate of the Mediterranean or the Mauritius, the proportion of rheumatic affections is even greater than in the inclement regions of Nova Scotia and Canada, and that, though some of the provinces of the Cape of Good Hope have occasionally been without rain for several years, these diseases are more frequent in the dry climate of that Command, than in the West Indies where the condition of the atmosphere is as remarkably the reverse; yet have extreme cold and atmospheric vicissitudes, coupled with excess of moisture, been assigned as satisfactory causes for their prevalence." 45.

c. Marsh Miasma and Fever.—The results of this Report, in regard to the relative prevalence at different stations in British America of remittent and intermittent fevers, add still further to the difficulty of establishing any uniform connexion between the presence of marshy ground, and the existence of those febrile diseases to which the exhalations from it are supposed to give rise. As it was formerly shown that, in some of the Ionian Islands, totally destitute of marsh and comparatively barren of vegetation, more remittent and intermittent fevers have been under treatment among the troops, than in others where these alleged sources of disease existed in the greatest abundance; so in the present Report we find it established, that yellow fever of the most aggravated form has repeatedly made its appearance at Ireland Island in the Bermudas, a rocky barren spot only a few hundred

yards in breadth, containing no marsh, and with little or no vegetation except a few cedar-trees.

Conversely, again, we find that these diseases prevail to a remarkable extent along the banks of the lakes, and the margin of the streams in Upper Canada, while they are comparatively rare in similar situations in the Lower Province; that among the troops at Fredericton, living on the marshy banks of a river, surrounded by dense vegetation, scarcely a case of them is ever known, and that a similar exemption is enjoyed even by those at Annapolis and Windsor in Nova Scotia, though quartered at the embouchure of rivers daily subject to extensive inundations, and of which the banks, for the distance of several miles, exhibit that combination of mud, marsh, and decayed vegetation, which is generally supposed a most prolific source of febrile diseases.

When, in subsequent Reports, we come to investigate the operation of these diseases, on the West coast of Africa and other colonies, we shall be able to adduce still more satisfactory evidence on this subject; in the mean time, we have felt it our duty to place the preceding facts in a prominent point of view—not for the purpose of establishing any particular theory, but to show how inadequate, in many instances, is the supposed influence of emanations from a marshy soil to account for the origin of these diseases. All the evidence obtained seems only to warrant the inference that a morbific agency of some kind is occasionally present in the atmosphere, which, under certain circumstances, gives rise to fevers of the remittent and intermittent type; and that though the vicinity of marshy and swampy ground appears to favour the development of that agency, it does not necessarily prevail in such localities, nor are they by any means essential either to its existence or operation.

d. Removal of Stations for Escape.—"Notwithstanding the doubt in which this branch of the investigation is still involved, we may venture, from the facts adduced in all the Reports hitherto submitted, also to draw the conclusion, that when this morbific agency manifests itself in the epidemic form, its influence is frequently confined to so limited a space as to afford a fair prospect of securing the troops from its ravages, by removal to a short distance from the locality where it originated. The history of the epidemic fevers at Gibraltar furnishes several remarkable instances of this kind, and we have also shown that, both in the West Indies and Ionian Islands, one station has frequently suffered to a great extent from yellow fever, while others within the distance of a few miles have been entirely exempt. In the epidemic cholera at Montreal and Halifax, which seems to have been in this respect somewhat analogous in its operation, we have also had occasion to remark the sudden cessation of the disease immediately on the removal of the troops even to a short distance.

Practical Observations showing that Mercury is the Sole Cause of what are termed Secondary Symptoms. By *P. J. Murphy*, M.D. Licentiate of the Royal College of Surgeons in Ireland. Churchill, 8vo. pp. 107, 1839.

In his Preface, Dr. Murphy informs us that:—

"In a moral point of view, it may be questioned whether if the doctrines here adduced be true, it would not be better to let them remain untold. This objection carries with it apparently a great deal of weight, and might demand very serious consideration, were it not that we are aware that prostitution exists, and has existed, although it places its votaries beyond the pale of society, is practised under apprehension of a loathsome disease productive of great bodily suffering, and is forbidden by religion.

The advantages and disadvantages, however, of making this doctrine known seem nearly balanced. The dread of contagion being removed, there will be less temptation, on the part of man, to lead those females astray who are already virtuous; and a great amount of physical evil will be avoided by the disuse of a mineral which has destroyed more than it has saved."

This is cheering news for ladies of loose virtue. They will be at premium so soon as Dr. Murphy's practice takes root. For, as he believes that primary symptoms can be cured without mercury, and that secondary symptoms are only produced by it, it is clear that *mere* pox is no great matter.

The work consists of eleven chapters. The *first*, is on the identity of the gonorrhœal and syphilitic poisons—the *second*, affirms that the syphilis is not a modern disease—the *third* is on chancre—the *fourth*, on bubo—the *fifth*, on ulceration of the throat, palate, nares, &c.—the *sixth*, on iritis—the *seventh* on tophi, nodes, and other affections of the bones—the *eighth*, on venereal swelled testicle—the *ninth*, on syphilis in infants—the *tenth*, on sibbens—and the *last* presents to us the "conclusion."

We shall reverse the ordinary method of reviewing, and notice the last chapter first. We do this that our readers may see at once the gist of Dr. Murphy's observations, and appreciate the object that he aims at. This is, we conceive, the best method of proceeding in cases of a controversial character, like that of the treatment of syphilis.

The principal doctrines that he advocates are:—

1stly.—That the secretion which produces gonorrhœa is identical with that of chancre.

2ndly.—That consequently, as early an origin must be assigned to chancres and bubo as to gonorrhœa.

3rdly.—That bubo arises from inflammation of a lymphatic vessel, continued to its gland, and not from absorption of a peculiar virus.

4thly.—*That ulceration of the throat, cutaneous erruptions, iritis, nodes, venereal swelled testis, &c., and termed secondary symptoms, are produced solely by mercury.*

5thly.—That chancres and buboes are simple local affections, and consequently not followed by any constitutional symptoms.

6thly.—That the peculiar train of symptoms termed syphilis in infants, have two sources—a mercurialized constitution transmitted by a parent, and sibbens.

7thly.—That sibbens not having been properly discriminated from chancre and mercurial ulcers, is one great cause of the obscurity which surrounds the venereal disease.

We may as well state in limine, *that* the two first positions are extremely doubtful—*that* the third is probably erroneous—*that* the fourth and fifth are totally opposed to our present views of the venereal—and *that* the fifth and sixth are, perhaps, in the same category as the third.

Dr. Murphy enumerates the diseases which he has traced to the carelessness with which mercury is now-a-days exhibited.

1st.—It originates scrofula, transmissible to the offspring.

2nd.—It excites tubercules into action.

3rd.—It leaves the body susceptible of nodes, rheumatism, and other diseases of the fibrous system.

4th.—It produces a tendency to ulceration of the surface and throat.

5th.—Dysentery and ulceration of the intestines.

6th.—A predisposition to aneurism.

7th.—Anterior capsular cataract, as a consequence of iritis.

8th.—Caries of the teeth, with severe pain, mistaken for tic-doloureux.

9th.—A peculiar species of apoplexy.

The only affection, of this formidable list, to which we would now allude is the last. We quote the brief observations of our author, because we have seen two cases of a similar description.

"The species of apoplexy which I consider as caused by mercury appears chiefly in young men. I have witnessed four cases; the symptoms were sudden loss of speech, sense and motion, but not so complete as in the ordinary cases; the breathing slightly stertorious; a comatose state for a few days, and then a gradual return of motion, sensation, and speech, in the order just mentioned. There was a confusion of intellect for some weeks. The recovery in these four cases was speedy and complete." 106.

We pass to the text from which these conclusions emanate, and which is to be supposed capable of confirming them.

1. *On the Identity of the Gonorrhœal and Syphilitic Poisons,* Dr. Murphy gives some arguments but no facts. It is a question to be decided chiefly by experiment, and no experiments are made. His main battle is this:—

"From my own observations, and from facts recorded by others, I am convinced that the poisons are identical, and that this doctrine would long since have been an axiom in medicine, if the nature of chancre had been properly understood. I have sometimes seen individuals where gonorrhœa, chancres, and bubo were combined, and where the communicating party suffered from one form only of the disease. Ricord says, that in nineteen cases out of twenty of gonorrhœa, he found superficial ulcers of the mucous membrane covering the cervix uteri. This fact, I admit, weakens the inference I wish to draw from the above, when the disease is communicated by the female; but in the reverse there can be no obscurity, if a proper examination be instituted, and the moral character of the female can be depended on. For if a young married woman of irreproachable character is suffering from gonorrhœa, chancres, and bubo, and the husband suffers from gonorrhœa only, which he confesses he has communicated to his wife, I do not see how we can avoid acknowledging their identity, especially if we meet with three or four similar cases. Nor do I perceive anything extraordinary in their combination; for in the conjunctivitis of children

we have a purulent discharge from the eye-lids, consequent excoriation and ulceration of the cheek, attended or followed by enlargement, and very frequently suppuration, of the cervical glands, exactly analogous to gonorrhœa, chancre, and bubo." 18.

It will be obvious that the whole plausibility, for proof there clearly is not, of this argument, consists in the vagueness of the term chancre. The name being retained, conveys to our mind the idea of a syphilitic sore with all its peculiar properties. But what evidence is offered of the chancres in the young women being really chancres and not simple ulcerations? And what analogy is there between the *specific* chancre and the excoriation produced by matter running down the cheek? The logician perceives at once the advantage taken of a lax employment of terms.

On Chancre.

As our author contends that mercury is the sole cause of secondary symptoms, it is not, of course, necessary to distinguish syphilitic from other sores. Nor does he make the attempt. The only observations on this head that we need quote are the following:—

"To Hunter's definition of chancre there can be no valid objection; but when he asserts it will follow the application of the venereal poison only, I must withhold my belief, as from the difference of structure between the glans penis and common tegument, theory would suggest that such could scarcely be the fact, and this has been confirmed to me by observation. On whatsoever part of the body the venereal matter may produce a primary ulcer, nothing like a chancre, as defined by Hunter, is or can be produced, unless on the glans penis, the lips of the mouth, the labia pudendi, the clitoris, and perhaps the nipple; and its corresponding in these parts to this definition is not owing to any peculiarity of cause, but of structure, in which all these parts are more or less analogous.

Ulcers on the glans penis, penetrating three or four lines in depth, and produced by other causes, present the appearance of the Hunterian chancre. It was a circumstance of this kind that first awoke my suspicions that a great deal of obscurity hung over the venereal disease.

A young gentleman showed an ulcer with hardened base and callous edges to a surgeon eminent for his knowledge of this particular disease, who pronounced it chancre, and desired the patient to undergo a mercurial course. On further inquiry it was discovered that it originated from a wound made by the point of a scalpel, which was incautiously carried in his pocket. As the mistake was made by a surgeon of eminence, and as the ulcer answered Hunter's definition, it induced me to investigate more closely his doctrine. I soon learned that an ulcer cannot be pronounced venereal from its appearance alone, and I was highly gratified to find, from Mr. Colles's publication, that he had come to the same conclusion. Had Hunter contented himself with the definition, and not insisted so positively that mercury only was the remedy, the true nature of this simple and trifling disease would long since have been discovered. But the profession relying on his great name, and afraid to delay the specific, lest they should be morally responsible for the deplorable consequences which they believed must be the result, raised up a frightful train of real symptoms while combating a phantom." 35.

We would remark, *first*, that Hunter made a capital blunder, and just

what we should expect from his hypothetical mind, in erecting *a* sore as *the* syphilitic;—*secondly*, that we *have* seen venereal ulcers corresponding perfectly with the characters of "chancre" on the skin of the penis, and even on the pubes;—*thirdly*, that the analogy is not very strong between the glans penis and the labia, the mucous membrane commencing indeed on their internal face, but the erectile tissue being scarcely developed in them;—and *fourthly*, that although there cannot be doubt of other ulcers than venereal ones, assuming all the external characters formerly supposed *their* exclusive property, yet we should be sorry, on the evidence submitted to us, to affirm that those characters simply depend on the structure of the parts. Indeed a very little consideration shows that it cannot be so.

On Bubo.

The opinions entertained by the best informed surgeons on this subject, were expressed, we believe, in an article which we lately published in this Journal. The Hunterian notions on the nature of bubo cannot for an instant be received. They "go the whole hog" in asserting its specific character. It is now generally understood that bubo may be, and generally is, the consequence of the mere extension of inflammatory action, or of "irritation" along the absorbents—or the result of the absorption of a virus. But Dr. Murphy denies the latter, and makes every bubo of the former character. We need not enter on his arguments, for he does not, and he cannot, *prove* his negation.

Ulceration of the Throat.

We extract the following as the only observations that appear of material import.

"Hunter describes the true venereal ulcer of the throat 'as a fair loss of substance, part being dug out apparently from the body of the tonsil, possessing a determinate edge, very foul, and having white matter like a slough adhering, which cannot be washed away.' This description, however, is applicable to many other varieties of ulcerated throat, and at present no surgeon of reputation would pronounce an ulceration of the throat to be venereal from its appearance alone. There is no form of the venereal disease in which I have witnessed more hesitation on the part of judicious practitioners in exhibiting mercury than in this. This caution is the result of two circumstances:—First, the impossibility of discriminating the venereal form of ulceration from any other; and, secondly, that the chances are equal of the disease being exasperated instead of benefitted by the exhibition of mercury. Scarlatina, in the adult, when attended with ulceration of the throat, presents appearances almost identical with the definition just quoted from Hunter. When we recollect that there is very little, if any caution employed in prescribing mercury for primary symptoms in scrofulous constitutions—that salivation is aimed at, which is inflammation of the throat and parts contained within the mouth—that parts once inflamed are prone to take on the same action from a trifling cause—that scrofula shews itself frequently as an ulceration of the throat—that it is called into action and its symptoms exasperated by mercury—we need not be surprised if ulceration

of the throat should be almost the first of what are termed secondary symptoms. The ulceration, however, is seldom a solitary symptom, being usually accompanied either with cutaneous eruptions, or iritis. It is generally preceded by a febrile state of the system, and may be checked in its progress in its early stage by venesection, tartar emetics, saline diaphoretics, aperients, and regulated diet. When chronic from its commencement, or becoming such from the acute stage, having passed over, cicatrization will seldom fail to follow the use of the vapour bath, the local application of nitrate of silver, either solid or in solution, as a gargle, and the hydriodate of potash in a decoction of sarsaparilla. Warm weather alone is a powerful adjuvant, and many ulcerated throats heal on the approach of summer." 51.

To our experienced readers we need hardly say, *that* ulceration of the throat not unfrequently follows venereal sore, for which *no* mercury has been employed—*that* it often occurs where only a small quantity of mercury has been used—and *that* it not seldom resists all remedies till mercury is given. How this is to be reconciled with the doctrine that it depends upon the use of mercury we do not know. Of course ulceration of the throat often *does* result from abuse of mercury; but it is rushing to the opposite extreme to say that it only occurs from it. The part of the practical surgeon is to discriminate the two orders of cases.

Tophi, Nodes, and other Affections of the Bones.

"In the whole range of medical science, there is no fact more impressed on my mind, from careful observation, inquiries and study, than that there is not any such disease as a venereal node, or any other affection of the osseous system. Mr. S. Cooper, in the last edition of his Surgical Dictionary, refers to the writings of Fallopius, and other eminent physicians, where their opinions are distinctly given, that in lues venerea the bones were never affected unless when mercury had been used. The same opinion is hinted at by several modern authors, but they seem afraid of speaking out plainly, either from not being fully convinced of the fact, or from the doctrine being unpalatable, as it is opposed to the present ideas of the profession." 63.

We cannot subscribe to this unconditional doctrine. We saw a gentleman, a short time ago, who had been treated in Edinburgh for the venereal without mercury. He had, along with tubercular eruptions, thickening of the femur about the great trochanter, attended with all the pain of periosteal inflammation, and with lameness. At the same time we have no hesitation in expressing our opinion that nodes are, in the immense majority of instances, the result of abuse of mercury. This is, we think, as certain as any induction of the sort can be.

Dr. Murphy goes on to observe:—

"The tendency of fibrous structure to disease after a mercurial course is well exemplified by rheumatism. This effect of mercury is now so well known, that it has received a distinct appellation—mercurial rheumatism. I have met with persons satisfactorily tracing this disease to the use of mercury after a lapse of thirty years. The principal argument advanced against mercury being the cause of nodes is, that when exhibited for other diseases than syphilis those symptoms do not follow; and that in India, where mercury is given in so large quantities for hepatitis and dysentery, the disease is never witnessed. That nodes or any other disease of the bones are very unlikely to follow the exhibition

of mercury in a climate so hot as India, will be readily admitted. There the intense heat must act as a perpetual vapour bath, and thus carry off all the mineral by perspiration. When we wish to protect our patients from the injurious effect of mercury in this climate, the vapour bath, and whatever else tends to promote perspiration are recommended. It is not very difficult to assign a reason why they do not follow the exhibition of mercury in other diseases. When a patient is placed under a mercurial course for any other disease than syphilis, he is always guarded against the effects of cold; the medicine is given regularly and systematically with a defined object in view, which being obtained, every precaution is then taken by hot baths, purgatives, warm clothing, &c., to prevent injurious effects. Is such the mode adopted when exhibited for syphilis? A scrofulous constitution, which, when affected by any other disease, would almost deter us from the exhibition of this potent remedy, is here disregarded. It is administered irregularly, and under every disadvantage. The patient, while pursuing his ordinary avocations, takes his calomel pill night and morning, disregards the weather, pays no attention to diet, while the constant exposure to cold requires that a larger quantity be administered than if he were confined to a warm chamber; and while in other cases the medicine is prescribed in large doses, quickly repeated, here it is taken in small doses at long intervals, until the system is completely mercurialized. To avoid suspicion, the patient neglects the precautions ordinarily employed, and, content with relief from present symptoms, pursues his usual business." 67.

On these observations we would ourselves observe:—*first*, that we do not quite understand how any person could *satisfactorily* trace an attack of rheumatism to mercury taken thirty years before—*secondly*, that hot countries are not so unfavourable to the development of rheumatism, and therefore to the agency of mercury in producing it, as Dr. Murphy supposes; for proof of this we refer to the Army Medical Reports contained in this and our last number—*thirdly*, that we do believe it a pernicious notion to suppose that vapour baths and warm rooms make mercury act more kindly; they tend to bring on a sudden and profuse salivation, and the worst cases that we have witnessed have been those so treated; nay, it was under the old régime, when this very plan was put in practice, that the aggravated ill consequences of the use of mercury were most conspicuous.

Dr. Murphy quotes Mr. Bacot thus:—

"Mr. Bacot says,—'In the administration of mercury, one precaution is absolutely necessary: either perfect confinement to the house, or such care in the exposure to weather, and such precautions against damp clothes, or wet feet, or other sudden transitions of temperature as shall be equal to it. These are old precautions, it is true; so old that I am sorry to say they are worn out; and now we meet with people every day who are under cure of syphilitic complaints, taking a mercurial pill or two, and are all this time pursuing their usual business.'" 67.

We are far from recommending indiscriminate exposure to the weather, nor would we be understood to contend that wet and cold are not bad things. But we think that the open air is made a bug-bear to venereal patients, and that a cure can be effected well enough in the great majority of instances, while patients are pursuing their ordinary avocations. We do not believe, nor have we found, that the administration of mercury is best regulated by the thermometer or the barometer. It's use should be conducted on two great principles, *first*, to maintain the patient's general health—*secondly*, to continue it for that length of time which is found by experience to give most

security against secondary symptoms. There are some cases (we find them very few) where confinement during a mercurial course may be advisable. In the great proportion, such confinement impairs the constitutional powers, and so tends to aggravate the bad effects of mercury. As a matter of fact, we do not find (and we enjoy a fair share of experience) that a *mild and judicious* mercurial course *does* disagree. Few are made worse, and some are even improved by it. Such is the result of our own direct observation. We commenced with no bias towards mercury. So far from that, we were captivated by the specious observations of Carmichæl and the statistical facts of the army surgeons. But we enjoyed the acquaintance and witnessed the practice of the late Mr. Rose. Nothing could be more unsatisfactory than the results of the non-mercurial treatment in his hands, and in the latter years of his life Mr. Rose confessed that it was, after all, a delusion. The experience of the Lock Hospital and of private practice established our convictions against the non-mercurial and in favour of the mercurial treatment, and how any practical man can continue a non-mercurialist is, to our minds, incomprehensible.

Dr. Murphy presents us with a chapter on syphilis in infants, to which we are unable to allude. The gist of his remarks is to trace the blotches, &c. of the infant to mercury rather than to syphilis, and, no doubt, he is not very far from the truth.

On Sibbens.

Sibbens, or Sivens, is a disease purely local. In the whole range of cutaneous diseases there is none so highly contagious. Its appearance varies according to the structure it attacks; so much so, that in different situations it is described under different names. Fici, crystæ, venereal warts, and condylomata, owe their origin to the same acrimonious secretion which generates sibbens. Even by surgeons of extensive experience and close observation, it is constantly confounded with venereal ulcers, both primary and secondary. Were the signs of this disease generally known, and its treatment properly understood, there is not the least doubt but much of that obscurity which now hangs over the history and treatment of syphilis would instantly be removed.

In the 'Medico-Chirurgical Review,' July, 1834, Mr. Henry Johnson has given us a very accurate description of this disease, as it shows itself when it assumes the form of warts and condylomata, as well as the appearance it presents when situated on the lips, tongue, and tonsils. In the latter form he describes it as *a peculiar superficial whitish ulceration.* His observations I regret have made very little impression, although appearing in a journal which is in the hands of all the reading portion of the profession. Their publication induced me to suppress some remarks on the same disease, which I had ready just then for the press, as I found myself anticipated in almost every one worth making known to the profession." 90.

Sibbens, continues Dr. M., is usually first noticed, especially in females, on the organs of generation, in the form of ulcers, (apparently) raised from the one-eighth to the one-fourth of an inch above the surface; circular when small, oval when large; the diameter varying from the one-fourth of an inch to two inches; surface moist, pale and irregular like a raspberry; free from surrounding inflammation; exuding a fluid, profuse, turbid, adhesive, and peculiarly fætid; firm to the touch, and painless even when rudely pressed. Their

usual site is along the convexity and internal surface of the external labia pudendi, the nymphæ and clitoris, the diseased parts, which are naturally in apposition, having corresponding sores; and should there be inattention to cleanliness, the secretion passes to the verge of the anus producing a similar affection (*condyloma*), and if a slight way into the rectum it assumes another form (*ficus*), while in large fat women, the cuticle of whose thighs is frequently abraded by friction, it most usually presents itself under another (*verrucæ*). The inner surface of the vagina may also suffer, and here it assumes quite another appearance, looking like a *white superficial ulceration*, as if the cuticle only had been removed and no further injury done, which is in fact its true pathological character. Owing to anatomical causes, presently to be explained, the disease is less common in the male and not so well marked. The glans penis, and internal surface of the prepuce, the verge of the anus, and the anterior portion of the scrotum, are the parts where it will be usually found. On the two first named parts it is frequently seen under the form of gonorrhœa preputialis, and verrucæ; on the margin of the anus, as fici and condylomata; and on the scrotum it very closely resembles button-scurvy in a moist state. This disease seldom exists long on these parts without producing some affection of the lips, tongue, gums, tonsils, palate or inside of the cheek. Its appearance on these parts, or any mucous surface, is similar to that produced by a fluid when taken too hot.

After some remarks on the communication of this disease to nurses and their recommunication of it to sickly infants, Dr. Murphy goes on to state:—

"The appearance of the so-called ulcers are influenced by several circumstances. Their circular appearance is sometimes lost, and this is owing to two or more coalescing; instead of being raised and rough, they may be smooth and flattened, and this is the appearance they usually shew when situated at the verge of the anus, and is caused by the compression of the opposing surfaces of the nates. We sometimes have them assuming a similar form on the inner surface of the labia from the same cause of pressure. When existing on the scrotum, they may be flattened by the penis when in a depending position. Superficial observers frequently mistake them, when at the margin of the rectum, for rhagazes, or fissures, and this mistake occurs when two or three are partially united, or are in close contact without union. On the labia so much irritation is occasionally excited as to produce in its loose cellular structure considerable œdema. By strict cleanliness or the use of astringent applications, they may cease to secrete, and appear like a small firm tubercle; when those on the inner surface of the labia are in this state, they look like a row of flattened beads. The opposed surface of any of these ulcers seldom escapes contamination; and if we examine the anus, labia pudendi, or lower surface of the penis, and find an ulcer, we may expect that unless great attention be paid to cleanliness, the part in contact will certainly be diseased. This is an evident proof that it is contagious in the true sense of the word, and this power of contagion ceases with its power of secretion. When we find the mouth, lips, or tongue affected, it must be from actual contact, and hence the necessity of warning the patient of how necessary cleanliness is, and how cautious he should be in allowing the hand to go near the lips.

Patients in this state are generally set down as labouring under secondary symptoms, and according to the prevailing error of the day, obliged to submit to a mercurial course. The disease of the lips and tonsils will not yield to mercury, hence it is viewed as of a most obstinate nature; an interval is allowed the unfortunate sufferer, the mercury is again resumed; nodes, iritis, and ulcers (the usual effects of this remedy) next display themselves; the symptoms of the

disease and the effects of the remedy are combined, the treatment becomes confused, and a correct notion of the disease is supposed to be bestowed on us by the invention of a new word, pseudo-syphilis." 96.

Treatment.—For the local "sibbens" Dr. Murphy uses the black-wash as an application. His directions are, to apply it three or four times a-day to the diseased surfaces, by means of common lint, and if practicable oftener; if convenient, the lint, well saturated with the lotion, should be kept on altogether. When the disease exists at the margin of the anus, or on the labia pudendi, the continual application of the lint is indispensable, or otherwise the corresponding surface will inevitably suffer, and thus a new focus of disease will be generated, which will re-act on the original surface. In a few days the advantages of this plan are witnessed, by the condylomata and warts becoming dry and losing their secreting quality; the peculiar fætid odour ceases, and the parts look dry and clean. Previously to the application of the lotion, the diseased parts should be well washed with soap and water, and this process may be repeated at least once a-day. The astringent lotion is used with the intention of destroying the secreting quality merely, which it does effectually, but its power of removing the tumour (or rather, fungus) is very limited; a very strong solution of the acetate of lead or sulphate of copper destroys them as it destroys the venereal warts, with which they are identical; but as the action of a lotion cannot be restrained to the morbid part, the nitrate of silver in substance will be found the safest, the surest, and the most convenient remedy. It should be freely rubbed over the fungus every second day until every particle is completely destroyed, and the skin appears smooth and healthy. If the slightest remnant escapes, its power of secretion may return, which restores it to an inexhaustible source of contagion. The secreting quality being checked, the tumour may cease to annoy, and a careless patient may desist from remedies. Under these circumstances, the tumor follows the same course as the venereal wart, and may remain for twelve months in a passive state.

For the superficial ulcerations in the mouth, Dr. Murphy uses the nitrate of silver. The surface of the tubercle (for sometimes there are such) should be well rubbed, as well as the neighbouring cuticle, and should be repeated when the black-coloured lamina is detached, until every trace of the morbid product shall be effaced. The black wash should be used in the intervals. The superficial ulcerations of the mouth seem at first to resist the action of the caustic, but on persevering they will be found to lose gradually the white colour, and then to have their diameter lessened.

We have given what appears to us a sufficient account of the views of Dr. Murphy, because we have witnessed such changes in the speculative as well as in the practical departments of medicine, as to make us cautious in clinging to old opinions or rejecting new. But we must in candour confess that Dr. Murphy has not proved his case.

He asserted that mercury was the sole cause of secondary symptoms. He does not account for those instances of such symptoms, which occur (and they are numerous) where no mercury has been employed. He takes indeed the case of sibbens (the confused and objectionable term) and hints that when secondary symptoms occur, and mercury has not been used, it is the sibbens which has given rise to them. But as he adopts Mr. Henry Johnson's des-

cription of the venereal condyloma, and admits that it represents what he implies by "sibbens," we protest that we have seen sores of a different character not treated by mercury give rise to secondary symptoms—and we protest also that we have seen secondary symptoms of a different character from those which do follow the venereal condyloma, occur independently of the same calumniated drug.

We speak now from a little acquaintance, or, at all events, attempt at an acquaintance, with venereal disorders. It is strange that complaints so common are generally so ill understood. Few works on the subject are published which do not take a partial, if not erroneous view of them. One author abuses mercury—another will not use it—and a constant see-saw of extravagant theory and contradictory practice is kept up.

For our own parts we do not hesitate to say that the non-mercurial treatment is only a shade better than the ultra mercurial—that the advocates of both are in ruinous extremes—and whoever sets out with the promise of curing syphilis by the one method or the other will, if a candid man, see reasons at least for regretting his mistake, and, if an obstinate man, damage himself and his patients irremediably.

OBSERVATIONS ON COMPLICATED SURGICAL INJURIES, INCLUDING GUN-SHOT AND OTHER WOUNDS. By *Rutherford Alcock*, Esq. late Deputy Inspector General of Hospitals with the Auxiliary Forces of Portugal and Spain.

MR. ALCOCK is a young surgeon of great attainments and high promise. He has served with distinction in the late campaigns in Portugal and Spain, and acquired an amount of experience in gun-shot and other wounds, which, few in these piping times of peace can hope for. Nor has he suffered that experience to lie idle. He has been induced to communicate it to the profession, and to render it useful to us all.

The form of publication which has been adopted by Mr. Alcock has been that of lectures in our contemporary, the Medical Gazette. His observations have, in this manner, obtained an extensive circulation, and the information they contain has been conveniently diffused.

We shall select some of the more striking features in Mr. Alcock's remarks, and present them with little comment to our readers. We shall not attempt a connected analysis, as a lecture must necessarily contain much that is already familiar to practical men.

Appearance of the Entrance and Exit of a Ball.—There is more variety in the latter than in the former. Mr. A. has seen, however, in a wound of the face, the opening made by the entrance of the ball not only clear and incised, which is unusual, but so small that it was difficult to conceive the possibility of a ball having passed in. Generally the entrance of a ball is marked by a circularly depressed, torn, and contused opening, while the exit very commonly assumes more of the appearance of an incised wound—a sharp irregular line, frequently with everted edges.

Erroneous Impressions of Patients.—"It is often important to obtain clear ideas of the course a ball has taken; and in this matter the patient will sometimes entertain a very strong and erroneous impression. One of the most singular instances I remember was a soldier declaring he had spit out a ball which had lodged firmly in one of the cervical vertebræ, as you see by this preparation. On another occasion, an officer received a musket-shot in the flank, while turning to cheer a regiment on to the charge. I was by his side, and staggered at the same instant, under a violent shock caused, as I felt fully persuaded, by a ball through my knee. Having recovered in two or three moments from the first blinding and sickly feeling, I was well pleased to find that I had escaped with a grazing shot, and proceeded to see what was the matter with my companion, the Colonel. He had been carried a few yards down into a road, out of the shower of shot which had somewhat suddenly fallen upon us: thanks to the white breeches of the charging column. His mistake was a stranger one than my own; for when my fore-finger was buried in the wound, following the track of the ball, he was giving himself no little trouble to convince me that the ball had not gone in, until I told him I thought it must, because—the point of my fore-finger was four inches deep in his flank.

In fact, wounded men get all sorts of impressions, not only from balls, but about them. Nothing is more common than for a man to assure you he saw the ball drop after it struck him, or that he had picked it up and persist in it, until, by the aid of such conjuring as a little judgment and a sharp knife will effect, the real Simon Pure is held to his eyes, still red and warm from his body."

Mr. Alcock is inclined to think that a number of slight shots are more dangerous, than one of a serious character.

Extraction of Balls.—"From many instances that I have seen of the great, and more than once fatal, anguish occasioned by the presence of foreign bodies, I am inclined to go further to insure their extraction than is generally recommended. If the ball can be felt, it matters not what depth of muscular parts may lie between, I would have it extracted, and, if necessary, incisions made for that purpose. Two cases more particularly impressed this upon my mind."

Proportion of Cases of Secondary Hæmorrhage in the Wounded.—Mr. Alcock thinks that he never had a batch of 300 wounded, without two, three, or more cases of secondary hæmorrhage.

In Portugal, in a set of 300, five cases occurred. In Spain, in one set of 400, five cases occurred: three in gun-shot fracture of femur; one in gun-shot wound of face; and one in gun-shot fracture of humerus.

In another set of 500, four cases: two from gun-shot fractures of bones of face, one of fibula, and one of radius into the elbow-joint. In 1350 cases under my charge at San Sebastian, nine: and in 197 officers, two cases—both gun-shot fractures of leg.

1350, rank and file,	9	cases of secondary hæmorrhage.
197, officers -	2	ditto.
1547	11	

Mean average about 7 per 1000.

Incomplete Division of an Artery does not necessarily produce Hæmorrhage. Mr. Alcock observes that it is generally held, that an incomplete division of a large arterial trunk, whether by shot or incision will prove instantaneously fatal if no effective means be taken to prevent it; occasionally, however, a very striking exception may occur. Mr. Alcock relates a very interesting

case in illustration. He found a wounded man in a house, and examined him; he had apparently received a fatal wound in the face and neck. A musket-ball had entered the right cheek, on a level with the alveolar process of the last molar tooth, and passing downwards, made its exit in the neck of the opposite side, just above the clavicle, grazing the shoulder afterwards.

He lay totally insensible, labouring under the effects of concussion, with stertorous breathing, possibly also suffering from the loss of a large quantity of blood, although there was little about him where he was lying. Tumefaction ensued, suppuration, and on the fourth day the sloughs began to separate. On the fifth there was a little bleeding from both wounds—on the seventh it was considerable from the neck—on the eighth it occurred to the extent of two or three ounces—on the ninth, tenth, and eleventh, returns of it—on the twelfth, a violent hæmorrhage. On that day, Mr. Alcock tied the carotid, though great difficulties arose from the sloughy condition of the wound. The artery was exposed at a considerable depth from the surface, and a lacerated opening of nearly half an inch in extent was distinguishable in the canal of the carotid artery. The vein also appeared, though less distinctly, to be lacerated. The patient did well.

Injuries of the Head.

7. *Concussion.* Mr. Alcock defines this to be "any vibratory shock or jar, whether produced by direct violence to the head, or indirectly through any other part of the frame; producing lesion of function or structure in the brain."

It appears to us that we may apply the term "concussion" to one of two things;—*either* to a certain group of symptoms, more or less independent of their cause; *or* to a certain lesion, more or less independent of its symptoms. The latter is the more exact and philosophical method of proceeding, but it implies an acquaintance with the condition of the brain, in concussion, which unfortunately, we do not possess. The former plan then is the one actually adopted. If after an injury a patient exhibits certain cerebral symptoms, he is said to labour under concussion. If he dies, and *no inflammatory alteration or source of pressure* on the brain is found he is said to die of concussion. If he recovers without inflammatory symptoms, and without symptoms of pressure, he has recovered from concussion. If inflammatory symptoms supervene on those of concussion with or without a perceptible interval, he is said to labour under inflammation of the brain or of its membranes. If symptoms of pressure come on then the case has merged in one of compression. Such is the usual phraseology, such are the current opinions. Mr. Alcock's definition would point to another, and we cannot help thinking a more vague notion of concussion, for "a shock producing leison of structure in the brain" may include many injuries, which are not generally deemed mere concussion. We make this observation for the purpose of preventing any misconception in the minds of our readers, when they find Mr. Alcock employing a term in one sense which they might have understood in another.

Mr. Alcock remarks:—

"Stertorous breathing has been hitherto, and very erroneously, considered as a distinctive mark of compression, and not a symptom of concussion; but it occurs in both, and is merely indicative of a *degree* rather than a *kind* of injury. It indicates the implication of the excito-motory system—the relaxation of the

sphincters—the stopping of the glottis. If the par vagum in addition has any thing to do with laboured breathing, the indication is the same as regards the implication of another system besides the cerebral.

Many cases of very severe lesion and compression occur without any stertor, the mischief or injury apparently being confined to the cerebral system. In a case of very extensive extravasation, tearing through a portion of the cerebrum, the details of which I will give hereafter, 'there was no stertor,' and the fact was thus distinctly marked during the patient's lifetime. In another case of pure ramollissement, to which I shall also refer later, there was distinct and loud stertor for many hours.

Thus neither does the presence of stertor certainly indicate compression, nor its absence prove that no such state exists. I repeat it as an evidence of degree when the injury is in the brain, rather than of kind, and may occur in all forms."

Nothing can be more just than the observation that stertor is not a necessary symptom of compression, nor a certain proof of it's existence. All physicians are aware that ramollissement will produce all the usual symptoms of pressure—and many surgeons are not ignorant that pressure will produce convulsions or delirium, without stertor or the usual indications of pressure.

The real difficulty of distinguishing concussion from compression hinges on our ignorance of the pathological condition of which concussion is the symbol. We are therefore, as we said before, obliged to erect a mere group of symptoms into a substantive affection. But these symptoms may depend on more than one morbid condition of the brain, and the difference between that and compression may sometimes be one of kind, and sometimes one only of degree. Hence the necessity for extreme caution in defining these several lesions, and in erecting theoretical barriers between affections, the precise distinctive characters of which are not well known.

Mr. Alcock observes:—

"The most invariable consequence of all severe injuries to the head is concussion. I conceive it of the greatest importance to define in what this consists, and what are the effects which may be truly traced to it. The four elements of head injuries I have stated are, concussion, compression, lesion, ramollissement; and any or all of the three latter may be effects of the first. In this order they are best considered. Earliest in order of these effects is, a frequently recurring coma, supervening an hour or two after a concussion, though not at first, without any perceptible compression or lesion of structure otherwise to account for it. A question suggests itself—

'May not concussion lead to a subsequent comatose state, not depending on pressure or lesion, or any perceptible alteration of fibre or structure, an effect of concussion simply and only?'

The frequency of a comatose state supervening shortly after the shock, but not at the time, gave me this impression; but on careful investigation I failed in satisfying myself of the soundness of such a conclusion; but I succeeded in assuring myself, that the drowsiness, lethargy, or stupor, thus supervening, was *not* the result of compression, as that term is usually understood.

These cases do not admit of explanation by ocular demonstration, for either the patient gradually recovers, leaving us in doubt whether he recovers from mere concussion, or by the absorption of matter or other fluid which might have caused pressure; or if, on the contrary, he dies, there is such extensive disorganization or mischief, that the post-mortem evidence still fails to decide the question.

Close observation, and the fair use of our reasoning faculties, will often surmount greater difficulties than these. Attention to many such cases showed me, before long, that this supervening comatose state certainly did not arise from any pressure by effused fluid or coagulum, still less by formation of matter; first, because it came on too suddenly: and secondly, it might by treatment be as promptly dispelled. Absorption of any matter effused, secreted, or extravasated, could not possibly be the agent or mode of relief.

I conceive this effect may arise from the pressure of turgid and over-distended vessels throughout the substance of the brain—and the prompt relief, although often only temporary, produced by copious bleeding, further confirmed me in this opinion—or otherwise, the fibre may be so debilitated in its power of resistance, that it will not bear the pressure of even the normal quantity of blood in its substance: in either case it would be a case of compression; but compression not as it is usually understood or defined, nor possibly even congestion.

The following case bears upon this point:—

CASE, *showing the Secondary Coma of Concussion by pressure from fluid within the vessels.*—Philip Thorne, æt. 24, on the 16th of March, 1837, walked into the hospital from the field, and conversed intelligently for some time after he was placed in the ward; he had been struck by a musket-ball on the os frontis, which was fractured. Soon after he became quite comatose. Pulse slow and weak; surface pale and benumbed. His head was shaved; cold applied. About nine in the evening a small arterial branch bled very freely, which speedily relieved the appearances of compression, and the next morning he was free from all bad symptoms.

Spoon diet. Sharp purgative of calomel and jalap administered.

3rd day, there was a little pain in the head; pulse slow.

4th.—He said he felt occasionally light-headed; pulse rather jerking, but easily compressed; secretions free from the bowels.

5th—No change.

6th—Unusually sluggish and languid pulse, 56; complains only of local pains; sore unhealthy; bone denuded beneath.

7th—Pulse 52, same character.

8th—Right pupil slightly dilated; pulse 48, soft and irregular; very little pain, and merely local. During this period a saline mixture cum ant. tart., was directed for him.

9th—Says he feels perfectly well; all natural but pulse, which, up to the 15th, remained at 52, during which time he continued rapidly improving. It then became 70, regular, and perfectly natural.

He was discharged on the fourth month perfectly well, save that exposure to the sun, or much exertion, brought on pain and giddiness in the head.

This case then shows that a blow of no common violence did not produce any loss of consciousness, or serious inconvenience in the first instance; that in a few hours complete coma supervened, and was almost instantly relieved by loss of blood; the same state in a lesser degree, returning the second day after, and the pulse continuing to the fifteenth day to indicate disturbance of the circulation, but in no other organ or division of the nervous system.

It would be easy to select many cases where stupor supervened, some time after concussion and not at first, as readily relieved by bleeding, returning again, and that two or three times in the treatment of the same case; but as they are cases complicated with lesion of brain, &c., they give less simple, and therefore, perhaps, less conclusive evidence on the particular points under discussion. This tardy or 'secondary comatose condition,' as I have termed it, quickly relieved by bleeding, again recurring and again relieved, it must be evident, is the result of the shock, the concussion. It does not occur by any extravasation of fluid; and if from pressure, apparently can only arise from pressure of the fluid in the blood-vessels, whether in ordinary or extraordinary quantity."

There cannot, we think, be much hesitation in subscribing to Mr. Alcock's opinions. The fair and usual case of "concussion" is where the symptoms follow hard upon the injury—this "secondary coma" must, in the present condition of our knowledge, be looked on as the result of congestion, which, if not checked by depletion, would, probably, in many cases, run on to inflammation. It certainly should be distinguished from the common and simpler case of concussion, both on account of its nature and its treatment. It approaches, in our minds, more to compression than concussion. It must be recollected that some of the worst cases of apoplexy are, apparently, of a similar description. A man dies with marked apopletic symptoms. On dissection, all that is found is a congested condition of the brain. A blow on the head would be likely, à priori, to give rise to such a state, and even were other evidence wanting, the case and the observations of Mr. Alcock, would, to our minds, be perfectly conclusive.

Mr. Alcock proceeds to observe that cases, apparently similar, will end in very different ways. If the lesions are really similar, the difference of termination seems to us to be *usually* attributable to the variety in the degree or kind of succeeding inflammation. This is after all no more than we see in all accidents of all parts, and indeed in all instances of all morbid actions.

Mr. Alcock next alludes to what he terms "the dispersed or distant effects" of injuries of the head upon the system. These, however, are no other than those secondary inflammations and deposites, which have attracted great attention of late years, and which follow other injuries as well as those under consideration, and we are much inclined to doubt whether such inflammations and deposites can be looked upon as the effects of concussion. They follow those injuries of the head, which lead to inflammation and to suppuration, or the formation of lymph. There is every reason to believe that it is to the latter, and not to the concussion, per se, they are attributable. At all events, we have never seen them result from mere concussion, and we have seen them ensue after scalp-wounds and injuries unattended with concussion altogether.

Mr. Alcock pursues the effects of concussion.

"It produces," he says, "an irritability of fibre, rendering the brain morbidly sensitive to all stimulus; and this, I am led to believe, is by far the most common effects of serious concussion. Any excitement—much exertion of mind—exposure to the rays of the sun—spirituous liquors, &c., quickly producing head-ache and giddiness: if persisted in or carried to excess, violent disease in some form is developed in the brain. I have almost invariably found this to be one of the effects, more or less permanent, of serious concussion, and often the only one remaining after treatment."

Mr. Alcock relates two cases. We will quote the second.

Case.—William Wilson, æt. 34, was struck by a ball on the outer angle of the forehead on the left side, and the bone was slightly fractured. There do not appear to have been any of the usual symptoms of concussion.

Second day, a little pain of head; third, easy; no fever, tranquil pulse.

On the fourth day complained of a great deal of pain and uneasiness about the head.

A sharp purgative of cal. and colocynth, followed by magn. sulph. and ant. tart.

On the succeeding day was found to have passed a restless night; eyes heavy; pupils dilated; pulse slow, laboured, and full in volume. Bowels had been freely purged.

V. S. ad ʒxvj. Emp. lyttæ nuchæ.

6th day.—Little change; no sleep, but feels heavy; pupils dilated, and vision of left eye (below the wound) impaired.

7th.—Improved a little; less heaviness of head; bowels open; pulse calm and soft; tongue clean; thirst; pain in the head still; eyes suffused.

Repeat the blister.

8th.—Pulse more sluggish. Pain continues.

9th.—Better; less pain and heaviness of head; pupils contract slowly; redness of eyes continues; pulse soft, and nearly natural.

10th.—Upon the whole feels better. Pupil of left eye widely dilated—less redness. Pulse soft and tranquil; tongue moist and clean; skin cool; extremities warm.

From this period to the end of the third month, pain of the head, conjunctival disease, sluggish action of bowels, and impaired vision of left eye, continued. He was at this period sent home, when Mr. Alcock made the following note of his state.

"Dec. 31st.—Invalided home. He complains of constant pain in the head, more or less severe. Injury to the sight of the left eye—a sparkling before it. Pain shooting from the point where he was wounded, across the forehead; giddiness. Both pupils appear more dilated than natural. No other indication of disease, or variation from healthy state. His tongue red, clean, and appetite good. Pulse 92, full, and regular. A trifling cicatrix marks where the ball struck and apparently glanced off.

This case is an example of a high degree of irritability of fibre, and to this I refer the almost unceasing and long-continued pain of the head, without any other indication of disturbed health. Here no unusual stimulus was required to produce the headache, &c."

It appears to us that, for the sake of precision both of language and ideas, it is always advisable to connect, so far as we are able, effects with their immediate causes. The preceding case did not display, so far as we can see, the symptoms which are termed concussion. On the other hand, the subsequent phenomena, the pain in the head, the suffusion of the eye, the loss of vision on the side corresponding to the blow, rather tend to create a supposition that some inflammatory, or, at all events, congestive action was set up in or about the brain. We do not deny that a peculiar state of excitability is sometimes left after pure concussion, not succeeded by inflammatory action, or not attended by some obvious lesion. Yet it strikes us that such cases are not so frequent as those where a distinct lesion or positive vascular action plays the efficient part.

If a blow on the head produces no symptoms of "concussion" at the time, and, after an interval coma supervenes—is that to be looked on as concussion? The question is rather one of words than things; but so far as we have seen, such coma has been attributable to congestion or incipient inflammation of the encephalon, marked by characters which were tolerably appreciable. "Concussion," or nervous shock, is not usually benefitted by depletion—this supervening coma is.

However this may be, or whatever view of the subject may be taken, we proceed with Mr. Alcock's observations.

"Continuing," he says, "the classification of the effects of concussion, there sometimes will result inflammatory or mixed inflammatory and irritable symptoms, without any intervening coma, stupor, or loss of consciousness, of which I will give you an example. Let me observe, first, that this effect collaterally proves the fact I have assumed, that the secondary coma (*i. e.* a violent effect) may proceed from irritability, a state of cerebral fibre induced by concussion; although that concussion may not, in the first instance, have produced lesion of functions, organic or animal."

In other words, concussion may be followed by inflammatory action in the brain or its membranes.

Another effect of concussion is thus noticed by Mr. Alcock:—

In some cases, during the first comatose stage or continuance of coma, particularly if the concussion be complicated by any lesion or lodgement of a foreign body, an exalted action supervenes, and inflammation or irritability becomes developed. The pupil contracts and the pulse beats sharply.

Mr. Alcock gives, as an instance, a case in which a man received a musket-ball, which penetrated the scalp, over the centre of the right parietal bone, fracturing and depressing a portion. The dura mater was torn—portions of bone were forced into the substance of the posterior part of the right hemisphere—the ball, jagged and flattened on one side, was lodged in the brain, half an inch from its surface—the structure of the brain was ulcerated and destroyed nearly perpendicularly downwards to the roof of the right lateral ventricle. The whole of the right was exceedingly softened; the left firm and natural. No obvious traces of inflammation in the structure generally. Right lateral ventricle filled with turbid fluid, and the whole surface somewhat discoloured, and apparently implicated in the disease. The whole of the dura mater, at the base, was of a bright purple colour. Right cerebellum slightly softened. The patient was comatose on admission, with contracted pupils, and full and bounding pulse. He recovered partially from the coma. He died on the 27th day.

Mr. Alcock refers another class of effects to concussion:—little loss of consciousness or coma at first, but quickly succeeded by disorganization of the brain, partial or general.

He cites the following short case.

Case.—John Medley, was struck on the first of October, 1836, by a musket-ball, which entered the back of the head at the left side, coursed below the integuments, and was cut out over the parotid gland of right side. The constitutional or sensorial disturbance very slight, and at eight in the evening he was in an easy sleep.

On the 2nd day he was drowsy, and rather inclined to wander; pulse was feeble, and very slow.

V.S. ad ʒxvj. Cold applications to the head.

3d.—Moribund; and on the 4th he died.

Post-mortem.—The ball was found to have struck the bone below the occipital protuberance, to have driven in a splinter on the dura mater, then passed on externally, and lodged under and to the inside of the mastoid muscle. The dura mater was slightly torn. The brain for some distance about the wound was dark, sloughy, and disorganised; all the vessels were

injected, and the ventricles full of serum. The ball had not fractured the skull where it pierced the scalp, but obliquely in its passage.

Nothing can exhibit in a stronger light than this case does, the different sense attached by Mr. Alcock, and by surgeons generally, to the term concussion. Most persons would say that in this instance the concussion was slight, and the lesion of the brain by the splinter the essential cause of its disorganization and the patient's death.

It is only fair, however, to our able author, to cite his own explanation of his sentiments.

"To successfully distinguish between compression and concussion when both have taken place, is not always possible; and I think the endeavour has often led to error. It has led to the practice of considering, that if after a comatose state, from concussion, or even without that effect having occurred, if some hours or days after, a state of stupor, &c. come on, the surgeon in such case had undubitably to deal with compression, and that only. It will be seen by the facts I have already brought forward, that such can rarely if ever be the case; that the effects of concussion do not cease with even the first stupor, but that there are manifold effects assuming many forms, which follow as natural sequences. It is exceedingly rare that some one or other of these do not ensue; and if compression be one of them, it is not compression only that baffles our skill or taxes our diagnostic powers, but compression added to concussion, from which in truth it proceeds. I have endeavoured to show that this very compression may exist by the blood within the vessels, and only by the altered fibre of the brain, induced by concussion. Nay, if lesion, disorganization, and ulceration ensue, we still are among the sequelæ of concussion, when that has existed in the first instance; and if to concussion they add some features or symptoms, which yet remain to be seen, still they are enveloped, pervaded, as it were, by the general characteristics, and controlled by the injurious influences of concussion. I have yet to show that concussion, by its disorganising effects will *control the outward manifestations of inflammation, and maintain the action of the heart at its own lowered standard.* It will paralyze and rigidly fix the iris, in despite of inflamed membranes and brain, the natural effect of which is greatly to increase the irritability of the retina, and endue the iris with morbid contractility. It will permit the development of inflammation within the skull, and yet control the manifestation of any increased action throughout the system; where, then, are the unerring guides to be sought for on the supervention of inflammation, lesion, or extravasation? Not in the pulse, not in the iris, neither in the skin; all these it will control at periods, when it has hitherto been deemed to have ceased all action. Without concussion or a blow, compression may often be truly predicated; lesion I doubt if ever, and not always compression; for I have also shown that disorganization and softening will produce symptoms undistinguishable from concussion and compression."

Mr. Alcock sums up the usual stages or phases of concussion thus:—

1. Coma, depressed or paralysed action, which may be confined to cerebral system, or implicate in various degrees the excito-motory and the sympathetic.

2. Exalted action more or less extended in a similar manner, and varying in degree in each; attended almost invariably with suppressed or diminished secretions.

3. Stage marked by irritability of cerebral fibre existing in some for days, and often for life.

We cannot conclude without expressing the sense we entertain of the zeal and the abilities of Mr. Alcock. He distinguished himself honourably in the Peninsula, and is a candidate (we have no doubt he will be a successful one) for metropolitan practice.

PERISCOPE;

OR,

CIRCUMSPECTIVE REVIEW.

"Ore trahit quodcunque potest, atque addit acervo."

NOTICES OF SOME NEW WORKS.

INAUGURAL DISSERTATION ON THE PHYSIOLOGICAL INFERENCES TO BE DEDUCED FROM THE STRUCTURE OF THE NERVOUS SYSTEM IN THE INVERTEBRATED CLASSES OF ANIMALS. Submitted to the Medical Faculty of the University of Edinburgh, in conformity with the rules for graduation, by authority of the Very Rev. Principal Baird, and with the sanction of the Senatus Academicus. By *William B. Carpenter*, M. R. C. S., Late President of the Royal Medical and Physical Societies of Edinburgh, &c., and Candidate for the Degree of Doctor in Medicine. Edinburgh, John Carfrae, 8vo. pp. 84, 1839.

MR. CARPENTER is very favourably known for the "Principles of General and Comparative Physiology," a work which he has lately published, and which we had the pleasure of noticing.

A glance at the title will display the object of the work of Mr. Carpenter—of it's execution we can speak in terms of approbation—and it's results are summed up in the following "Conclusions," not of things proved, but of things probable. They show the existing state of our knowledge, and our ignorance on one of the most important subjects in Physiology—the nervous system. Our author concludes:—

"I. That a nervous system, in the form of connected filaments with ganglia on certain parts of them, exists in all Animals (that is, in all beings endowed with any degree of sensibility and voluntary power), although its presence may not be detected by our means of observation.

II. That the actions most universally performed by a nervous system are those connected with the introduction of food into the digestive cavity.

III. That we have reason to regard this class of actions as everywhere independent of volition, and perhaps also of sensation;—the propulsion of food along the œsophagus in man being of this character.

IV. That, for the performance of any action of this nature, a nervous circle is requisite, consisting of an *afferent* nerve on the peripheral extremities of which an impression is made;—a ganglionic centre, where the white fibres of which that nerve consists terminate in grey matter, and those of the efferent nerve originate in like manner;—and an *efferent* trunk conducting to the contractile structure the motor impulse, which originates in some change in the relation between the grey and white matter.

V. That such actions may be regarded as the simplest of those which the nervous system performs, and most resemble the examples of contraction produced by the irritation of distant organs in Plants, (where an *impression* is mechanically conveyed by the circulating system,) of any which the Animal Kingdom affords.

VI. That in the lowest Animals such actions constitute nearly the entire function of the Nervous System; the amount of those involving sensation and volition being very small.

VII. That, as we ascend the scale, the evidence of the participation of true sensation in the actions necessary for the acquirement of food, as shown by the development of special sensory organs, is much greater; but that the movements *immediately* concerned with the introduction of food into the stomach remain under the control of a separate system of nerves and ganglia, to the action of which the influence of the cephalic ganglia,—the *special* if not the *only* seat of sensibility and volition,—is not essential.

VIII. That, in like manner, the active movements of respiration are controlled by a separate system of nerves and ganglia, and are not dependent upon that of sensation and volition, though capable of being influenced by it.

IX. That the centres of these systems are brought into closer structural relation with that of the sensori-volitional system as we ascend the scale of Invertebrated Animals; until they at last apparently become a part of it, as in Vertebrata, where, however, they still remain really separate, and may be artificially insulated.

X. That, whilst the actions of these systems are in the lower tribes almost entirely of a simple—reflex character, we find them, as we ascend, gradually becoming subordinated to the will; and that this is effected by the mixture of fibres proceeding directly from the cephalic ganglia with those arising from their own centres.

XI. That the locomotive organs, in like manner, have their own centres of reflex action, which are independent of the influence of volition, perhaps also of sensation.

XII. That the influence of the will is conveyed to them by separate nervous fibres, proceeding from the cephalic ganglia; and that similar fibres probably convey to the cephalic ganglia the impressions destined to produce sensations.

XIII. That the stomato-gastric, respiratory, and locomotive centres are all united in the spinal cord of Vertebrata, where they form one continuous ganglionic mass; and that the nerves connected with all these also receive fibres derived immediately from the cephalic ganglia.

XIV. That whenever peculiar consentaneousness of action is required between different organs, their ganglionic centres are united more or less closely; and that the trunks themselves are generally connected by bands of communication.

XV. That the sympathetic system does not exist in the lowest classes in a distinct form;—that the nervous system of the Invertebrata, taken as a whole, bears no analogy with it;—that, as the divisions of this become more specialized, some appearance of a separate sympathetic presents itself;—but that this is never so distinct as in Vertebrata.

XVI. Hence it may be inferred that, as the sympathetic system is *not* developed in proportion to the predominant activity of the functions of organic life, but in proportion to the development of the higher division of the nervous system, its office is not to 'preside over' the former, but to bring them into relation with the latter; so that the actions of the organs of Vegetative Life are not dependent upon it, but influenced by it in accordance with the operations of the system of Animal Life."

Delirium Tremens: its Diagnosis Causes and Treatment. By *Julius Wolff*, M.D.

Dr. Wolff, like all his German brethren, has shewn great literary industry in searching through various monographs and journals for information respecting this curious and dangerous disease. He has also evinced judgment and discrimination in his selections—a quality not always found in conjunction with biblical erudition. Much novelty, however, cannot be expected now a-days, either in the nature or treatment of the malady. The following passage and foot-note are amusing.

"Sometimes the delirium is removed by conversation; but on this being discontinued, the attack is quickly renewed. A most remarkable peculiarity, however, of this disorder is, that the patients cannot bear to be told the truth,* and if any one inconsiderately endeavours to force conviction upon them, they instantly fall into the most violent paroxysms, thinking all their friends enemies, throwing themselves restlessly about, starting up, making convulsive motions with their limbs, and screaming: they also utter melancholy moans and lamentations, greatly alarming their friends who may be present. The paroxysms are generally more violent towards evening, commonly decreasing as the morning advances.

This violent disease has been for some time endemic in Germany, and the homœopathists, or insane persons afflicted with it, are as equally averse to hear the truth as these patients: for if it have been attempted to point out to them how absurd, unsupported, and false are their principles, and how untrue their assertions, they immediately fall into a fit of raving, which might very properly be called *Homœopatho-mania*. I some time since happened to have a conversation with an English Homœopathomaniac, although not aware at its commencement that he belonged to Hahnemann's School; but having incidentally remarked, that I thought the homœopathists a set of quacks, the paroxysm came on most violently, so that I was almost tempted to prescribe him the ten millionth part of a grain of *aconitum napellus*. So true it is, that people afflicted with certain diseases or errors do not like to be told of them; thus the hypochondriac will not be called hypochondriac, the fool will not be called a fool, and the homœopathist will not be called a quack."

The post-mortem investigations have seldom proved satisfactory in this dangerous complaint. We shall, however, conclude this short article with some extracts from a valuable paper, by Dr. S. Jackson, published in our esteemed transatlantic contemporary—the American Journal of Medical Sciences.

Dr. Samuel Jackson, of Philadelphia, has given an interesting practical paper on this disease, the results of an experience we should in vain look for in the practice of any single physician in this sober country. He remarks that physicians have constantly confounded two diseases under the name of delirium tremens; diseases perfectly distinct from each other, "not belonging to the same order, not even to the same class, one being, we conceive, a pyrexia, and the other a neurosis." The first of these the author designates by the name of *mania à potu continuo*, the latter, by *mania à potu intermisso*. He remarks that the first of these being a pyrexia, is cured by antiphlogistic sedatives, the latter, being a neurosis, "by excessive stimulation, or by the sedation of narcotics in alarming doses." The latter of these diseases, or the "mania à potu intermisso," is the disease to which he thinks the term *delirium tremens* ought to be confined. It is not necessary that the accustomed dose of the stimulus be with-

---

* "Having been just perusing, in a German periodical, an article on homœopathy, the applicability of this observation to those who are possessed with *fixed notions* respecting it has struck me most forcibly."

drawn; it is sufficient in very many cases to diminish it. It is thus that drunkards during a trifling illness are liable to attacks of this disease, as, in order to get rid of their indisposition, they diminish their daily dose. Sleeplessness comes on, soon increasing to the delirium so well known in this disease. It is in this state, and in this form of the disease, that sedatives in alarmingly large doses are the only remedies which can be relied on, and when the disease has attacked before, or the patient has been accustomed to very large potations of ardent spirits, the quantities required to be administered seem almost murderous; and if such large doses, both of opium and spirits, are not given as will *produce an abatement of the delirium by forcing sleep*, the patient must die, "and of course add another instance, however unjustly, to the number of cases fatally treated with opium."

The author's practice in this disease has been very great; for of two hundred patients treated by opium, brandy, and wine alone, he only lost four, and these were patients labouring under chronic diseases and organic lesions.

He remarks, that in genuine delirium tremens, the symptoms of fever, of inflammation, of turgescence of the brain, &c. require no leeches, no cupping, no antiphlogistics; all that is required to make "a safe, a quick, and pleasant cure," is to give opium in sufficient quantities.

With regard to the sufficient quantity, he states it to be impossible, in any particular case, to say *à priori* how large a quantity will require to be administered,—but it should be repeated in large and repeated doses, increasing the dose till sleep be produced. Unless this be produced it is certain the dose has been too small. Dr. Jackson, as an example of what has sometimes to be done, tells us of about a "dozen standing cases" he had where the usual dose was from ten to twenty grains; and this last quantity he has in some of these administered in four hours. "In this way," says he, "we have almost uniformly put the patient into a salutary sleep, and a smaller dose, given at the moment he awaked, has almost completed the cure."

Dr. Jackson gives the following summary of his opinions on this disease.

1. That delirium tremens is the consequence of a sudden abstraction or diminution of strong drink or opium in many persons who have long used either of these poisons intemperately.

2. That necrotomy has never discovered any lesions to which it could possibly be attributed; that it is purely nervous so far as human knowledge extends. As a stringed instrument is thrown out of tune by the atonic state of the atmosphere, so is the cerebral system in this disease, by the debilitating abstraction of stimulus.

3. That in all its degrees it is curable by opium, or by ardent spirits, or by a simultaneous use of both, though we shall sometimes fail by not being able to ascertain before it is too late, the requisite dose.

4. That it often supervenes on a system labouring under acute inflammation, the progress of which it will sooner or later suspend, so that opium may be given in the necessary doses. That though it arrests inflammatory action, it does not remove the effects thereof, which is the effect of time.

5. That suspending inflammatory action as it does, those authors who speak of pain in the head, with fiery eyes, requiring the loss of twenty to one hundred ounces of blood, have confounded the disease with temulent excitement.

6. That there are not two varieties of the disease, one to be cured by opium, and another by evacuation; one the consequence of too little, and the other of too much stimulus.

7. That evacuations, of whatever kind, have no tendency to cure this disease; they cure temulent delirium or its inflammatory consequences.

8. That mild cases have often been cured by various means, which fact has been the cause of many errors; that the worst cases are incurable without opium or spirits in enormous doses.

9. That there is a delirium frequently arising from drunkenness, which is often attended with convulsions, fits of drowsiness, flushed face, and inflamed eyes, with angry passions, noise, and turbulence; in a few cases with trembling; and in many, with too much watchfulness; which delirium is often postponed for a day or more after the patients have quitted their spirits, but it is radically the inflammatory state of the system thereby induced. This is often taken for *delium tremens*, though it is easily distinguished therefrom, and requires a very different treatment. When this is subdued by proper means, true delirium tremens sometimes supervenes.

DIARY OF THE REVEREND MR. WARD.

CAUSE OF SHAKSPEARE'S DEATH.

WE are almost as curious to know the particulars of a great man's death as of his life. We eagerly look to his conduct and expressions in that awful and melancholy transition from the cheerful day to the darkness of the grave—from the society of man to the silence of the tomb. A cloud of the greatest density has hitherto hung over the dying scene of Shakspeare. It was not even known, with certainty, what the disorder was which carried off the bard of Avon at so early an age. Mr. Ward, the son-in-law of Shakspeare, a clergyman, in his Memoirs, lately published, by Dr. Severn, has given us a very laconic bulletin of the Bard's last illness. Here is the brief memorial.

"Shakespear, Drayton, and Ben Jhonson had a merry meeting, and it seems drank too hard, for Shakespear died of a feavour there contracted."

Dr. Severn, indeed, has added some surmises or possibilities to the above—but nothing more is known, nor probably ever will be. Mr. Ward has remarked, in his notes, that the Avon frequently overflows its banks and leaves the meadows and fields immersed in stagnant water—and, consequently, that Shakspeare may have been in bad health from low malaria fever, before the jollification of the three wits occurred. The convivial meeting may have blown the latent fire into a devouring flame. From the somewhat amusing diary of Mr. Ward, we can extract but little of medical interest—and even that little is more curious than useful.

1. "N. Culpepper says that a physician without astrology is like a pudding without fat."

2. "There is a report of Hyppocrates, as if hee should say this in charge with Physitians—that they should cure others with simples and compounds, but themselves with sack and claret."

3. "Dr. Osborston was asked how he preserved his health so long? *Answer.* Parce cœnavi, solus cubavi, curas fugavi."

4. "Apothecaries in the small-pox, and such-like infectious diseases, charge for attendance."

5. "Hospitals too often have the rickets. The head grows bigge, while the body decays."

6. "*Pathology.* Whether or not the ventricles of the braine bee not the common receptacles to conveigh the humor out of itt, as the intestines are to the other parts; the braine being a fungous substance, abounding so much with water, must needs have a ditch or sink to conveigh itt away, as wee make ditches to draine bogges."

7. "Physick, says Sydenham, is not to bee learned by going to universities, but hee is for taking apprentices; and says one had as good send a man to Oxford to learn shoemaking as practicing physick."

8. "The ten leapers praid aloud in trouble, but they being once cured, nine

in ten are as mute as fishes; so itt is with physitians' patients, they promise fair till they are cured, but then never so much as come back and thank you"

9. Mr. Ward, who evidently dabbled in therapeutics as well as in theology, queries whether the exclusion of light from the face in small-pox would not prevent pitting!

10. "Some Doctors have a noble out of the pound of their apothecaries, as Dr ———."

The foregoing are fair specimens of the Medical Memoranda of the work. We confess that we think Dr. Severn might have omitted the whole section of some fifty pages, without any loss to his readers, and with great sparing of unnecessary trouble to himself. The dairy contians some curious facts and hearsays in religion, politics, history, &c., but to the professional reader it is quite uninteresting.

THE STRUCTURE, DISEASES, AND TREATMENT OF THE TEETH CONSIDERED, WITH A VIEW TO THE ABOLITION IN ALL COMMON CASES, OF THE PERNICIOUS PRACTICE OF TOOTH-DRAWING. By *William Wardroper*, Member of the Royal College of Surgeons of London, &c. Renshaw, 1838.

The object, a humane and glorious one, of Mr. Wardroper, is to introduce "an almost new principle of practice" in dental surgery, by which means the extraction of the teeth may be in most cases rendered unnecessary. It is an observation among philosophers, that the title of Great is commonly prostituted to the enemies of mankind, their wholesale butchers, or their successful tyrants. We will venture to say, that, if Mr. Wardroper keeps his promise, he will deserve the appellation far better than Alexander or Peter; and beyond a doubt, his country's annalists will give it him.

Yet we cannot perceive, on looking over Mr. Wardroper's pamphlet, the precise substratum of his future glory, or of our preservation. True, he speaks of treating dental maladies on general principles—true, he gives anti-spasmodic medicines for tooth-ache during pregnancy—true, he removes rheumatic affections of the shoulders, to a surprising degree, by attention to the teeth—true, he cleans the teeth carefully—true, he recommends the stopping of them, with soft matters for a time, and with hard afterwards—true, if stopping is impracticable, he removes the crown—true, he gives several bits of good advice;—yet, after all, there is not a great deal added to the stock of pre-existing information, and as that was not able to keep the teeth in our heads, we greatly fear that out they must continue to come.

Far, however, be it from us to patronise indiscriminate tooth-drawing. We always determined to keep our own teeth if we could, and Mr. Wardroper's sensible advice and exhortations have quite confirmed us in our resolutions.

A SHORT TRATISE ON THE EXTERNAL CHARACTERS, NATURE, AND TREATMENT OF THE DIFFERENT FORMS OF PORRIGO OR SCALD-HEAD AND RING-WORM. By *Walter Dick*, M.D. Octavo, pp. 58. 1838.

The Author appears to have paid great attention to the subject of his concise treatise, and to have studied its history and pathology with no ordinary care. This pamphlet, in fact, evinces very considerable research, and an intimate acquaintance with the writings of ancient as well as modern authors on the various forms of Porrigo. His situation, formerly, of house-surgeon to the Glasgow Infirmary, must have afforded him a practical field for prosecuting his anatomical and therapeutical inquiries with advantage.

The first chapter of the work is dedicated to criticisms on the nomenclature and arrangements of preceding authors, from which we can only give one extract.

"Admitting, as we must, that there is a difference in the elementary appearances of the several eruptions included under the term porrigo; it is, nevertheless, we think, an unnatural and unnecessary proceeding to separate, so widely as Plenck has done, diseases in other respects having many points of resemblance. Such a proceeding would prove highly disadvantageous.

Taking contagion, difficulty of cure, and alteration of the appearance of the hair, as the most striking features of the genus Porrigo, we may place in it, without reference to their elementary forms, the P. lupinosa, the P. scutulata, the P. furfurans, and the P. decalvans.

By observation and reflection we have been led to believe, that the organs primarily affected in Porrigo are the sebaceous glands and structure secreting the hair. The connexion between these two structures is so intimate, that they must act, and re-act, upon each other. From this consideration some light is thrown upon the symptoms of the disease in quēstion. In porrigo lupinosa, for example, the sebaceous follicles, are the organs primarily affected, and from the intimate connexion between these organs, and the structure producing the hair, the latter is very apt to suffer. It is from this communication of disease from the one structure to the other, that the hair so generally, and so speedily, becomes altered in appearance in this form of porrigo; and the incurable alopecia, which it not unfrequently causes, results from the disease destroying both the follicles and structure secreting the hair. Again, in porrigo furfurans (true ringworm) the disease originates in the structure producing the hair, and from the reverse of what occurs in P. lupinosa, the sebaceous follicles may become secondarily affected, and produce an irregular pustular crop scattered over the furfuraceous patches."

These four forms of porrigenous disease, Dr. D. believes to originate in but two different structures—namely in the sebaceous glands, and in the structure producing the hair—so that they might conveniently enough be reduced to two forms or species according to their origin or seat.

Over the second chapter, containing a concise but clear description of the anatomical structures, the seat of porrigo, as well as of the hair itself, we must pass. In the third chapter porrigo lupinosa, and p. lupinosa confesta, are lucidly described, with numerous references to various dermatological writers. From the section on the pathology of ring-worm, we extract the following passage, omitting Dr. D.'s criticisms on former theories.

"That Ringworm consists primarily of subacute inflammation of a specific character, affecting the pilous cysts, and structure secreting the hair, we infer from the following circumstances:—

1st. The thin, bran-like, incrustations so frequently seen surrounding the roots of the hairs, and consisting evidently of a morbid secretion from the pilous cysts.

2d. The falling off of the hairs from affected parts, and the towy, unhealthy, appearance of those which remain.

3d. In pulling out the hairs from affected parts, we have sometimes brought the bulbs along with them; and these never presented their usual, or normal appearance.

The disposition of morbid action to spread from the parts, or tissues in which it originates, to those adjacent, is well known: and in Ringworm, as in other diseases, this extension of morbid action always occurs, to a greater or less extent. After the disease has continued for a considerable time, the whole thickness of the skin at affected parts is, undoubtedly, affected, or in a morbid state: but the arguments above adduced appear to me sufficient to authorize us to fix upon the pilous cysts and hair bulbs, as the parts primarily affected in Ringworm."

TREATMENT OF PORRIGO.

The inveteracy of this complaint is acknowledged, both in public and private practice. Too little attention, Dr. D. thinks, has been paid to the pathology of these affections. "The eruptions dependent on constitutional derangement, and intended to obviate more serious diseases, are those which cannot, with safety, be suddenly suppressed." The eruptions of this nature, which affect the scalp, are principally impetigo larvalis, and favosa. "But, as the different forms of true Porrigo seldom arise from constitutional derangement, being generally local in their origin, it is seldom dangerous to cure them *quam primum*." Cleanliness is of the first importance, and for the removal of the scabs, poultices are very beneficial, and sometimes cure the disease. After the scabs are removed, the parts are to be frequently washed with warm water. Evulsion of the hair by pitch-plaisters and other means, is now abandoned—though it was advocated by the late Mr. Plumbe. Shaving the head, from time to time, when the scalp is not very tender, and the removal of loose straggling hairs, is all that Dr. D. recommends. When shaving is impracticable, the hair is to be cut close with scissors. When the irritability is allayed by poultices, slightly astringent lotions, or desiccative ointments, the following formulæ has been found serviceable in P. lupinosa. Hydrarg. oxidi rub. gr. x. to xx., fresh butter one ounce.

"In the furfuraceous Porrigo, or Ringworm, a solution of the nitrate of silver, or lotions containing sulphuret of potash, liq. potassæ, or tincture of muriate of iron, sometimes answer very well. Of late we have been in the habit of using an ointment, consisting of a drachm of subnitrate of Bismuth, mixed up with an ounce of lard or simple cerate. We order a little of it to be applied night and morning, having the parts well washed before each application. In our hands this ointment has always speedily produced an amelioration of the disease; and we could give several cases where it has effected a very satisfactory cure. I will not pretend to say how it acts beneficially in Ringworm; I simply state the fact, and would recommend other practitioners to give it a trial. If it succeed according to my expectation, it will be found a valuable addition to our curative resources for a hitherto much-dreaded and unmanageable eruption."

In the more inveterate forms of Porrigo, deutoioduret of Mercury—ioduret of sulphur, and iodide of carbon, have, of late, been employed; but not with much success by Dr. D. M. Alibert found an ointment, consisting of equal parts of sulphur and charcoal, the most effective in all forms of Porrigo. For P. lupinosa, and P. lup. conferta, Dr. Dick has used with success the following form of ointment:—

℞. Ol. laurini, ʒiss.
Sulph. viv. ʒss.
Camphoræ, gr. x. Misce.

In the Porrigo decalvans, the growth of the hair must be attempted by the diligent application of tinct. cantharadis, flower of mustard, turpentine, &c. The liquor lyttæ, as prepared by Mr. Snowdon, of the Haymarket, promises to be an useful application.

Dr. D. informs us, that an ointment composed of finely powdered red cinchona bark—one drachm to an ounce of mild cerate—has sometimes succeeded, when all other applications have failed.

Little need be said, Dr. D. thinks, of constitutional treatment, since common sense would suggest it, "when the constitution, or general health, is *obviously*, or suspected to be, at fault." But here a question might be fairly put—does not constitutional treatment very often—very generally, influence *local* affections, however independent these last may be in their origin? In almost every kind of cutaneous disease we have found constitutional treatment greatly assist the

local remedies. How extensively useful is this liquor potassæ in various affections of the skin? Our author, indeed, further on, observes that" change of diet and alterative medicines are sometimes very serviceable."

We have thus confined ourselves almost exclusively to a concise analysis of this little brochure. From the manner in which it is composed, we are much inclined to anticipate something more important from the same pen, on some future occasion.

A REGISTER OF EXPERIMENTS, ANATOMICAL, PHYSIOLOGICAL, AND PATHOLOGICAL, PERFORMED ON LIVING ANIMALS. By *James Turner*, Veterinary Surgeon. Longman and Co. London, 1839.

The author of this pamphlet informs us in an advertisement, that:—

" The few following pages contain the description of an unique experiment as repeated upon the bloodvessels of living animals; together with results which consisted of the developement of some new facts, so important and startling in the contemplation of the phenomena of animal life, that, in the humble opinion of the Author, they constitute an entire new field for inquiry, worthy the research and scrutiny of the human physiologist, having the same reference to the structure and economy of man as to inferior animals."

Before we allude to the particular subject and object of our author, we cannot refrain from touching on an incidental topic, introduced to our notice by Mr. Turner.

" It is well known that veterinary science has flourished in this country, under the new and improved system as emanated from the Royal Veterinary College for nearly the last half century. Talented members of the profession have favoured the public with elaborate works upon the anatomy, physiology, and pathology of the horse, which will ever reflect credit upon their authors and the age in which they were written.

The veterinary art has recently been condescendingly styled by the giants of human surgery the ' sister science ;' and our venerable and talented Professor Coleman inculcates the necessity of his students cultivating a respectful acquaintance with the surgeons of the district where they may be located ; but I trust I may be allowed to add, for the honor of the profession of which I am a humble member, that the day is now arrived when the medical man no longer walks into the infirmary of horses to *dictate*, but merely for the pleasure both of giving and receiving professional information with that animus which ought ever to subsist betwen brothers engaged in kindred sciences."

" Two generations of veterinary men may now be said to have appeared before the public upon the basis of a medical education and scientific principles combined ; and Professor Coleman, the veterinary surgeon in chief of Her Majesty's cavalry, through the influence of his successful professional career, and backed by his gentlemanly deportment, having many years ago procured for cavalry veterinary surgeons the rank of commissioned officers from his late Majesty George the Fourth, all respectable veterinary surgeons, whether in the army or not, *claim* a station in society to which before that consummation they had, perhaps, *aspired*, but which can now no longer in fairness be withheld from them.

I take this occasion, but with the utmost deference, to hint to the medical profession that an intercourse with the veterinarian somewhat more social would be duly appreciated by him ; and, I will venture to add, would contribute greatly towards the ends of science."

We saw these remarks with satisfaction, and we quote them with pleasure. Nothing can be more gratifying than to witness the scientific character and professional advancement of veterinary surgeons. The old cow-leech and horse-

doctor may be laid on the same shelf with the barber-surgeon. The veterinary surgeon is a different person. Possessed of a scientific education, instructed in human and in general physiology, he carries to the practice of his art a not uncultivated mind. If he add to this a reasonable stock of general information, and the manners and deportment which good society exacts from those admitted within its pale, there is nothing in his occupation which should make either members of our profession, or indeed gentleman of any sort, repudiate an intercourse with him. In this country, the tyrany of despotism has been superseded by that of fashion and mode. This results from our aristocratic constitution, and the still more aristocratic spirit which that constitution has produced. This is so thoroughly stamped upon the English character, that as a philosophical Journalist has wittily remarked, were all other classes swept from the country, and only chimney-sweeps and nightmen left, there would be all the elements of a democracy and aristocracy. It would be easy to show that absolute princes must discountenance the aristocratic spirit—the favour of the sovereign comprising in itself all that aristocracy deems its privileges. Hence it happens, that society is more constrained in England, free as our country is, than on the continent of Europe, amidst its despotisms.

We fear that the veterinary surgeon will find the force of fashion hard to conquer. He may toil and attain much professional knowledge, without advancing his social position. Yet the evil is not insusceptible of remedy. If real scientific acquirements are blended with the usual knowledge and bearing of a gentleman, the veterinary surgeon, who posseses such advantages, will win for himself a place amongst gentlemen. We may instance Professor Coleman. Who amongst us has not seen him in our best professional circles—who has not felt that his exclusion would not be his, but our own loss? We would cordially second the recommendation of this excellent man, and advise a reciprocity of scientific communication and friendly offices between the members of our profession and practitioners of veterinary medicine.

We shall now turn to the experiments of Mr. Turner. He considers that his opportunities of observing the phenomena of the circulation in the smaller vessels have been more considerable than they can be in the hands of ordinary medical men; and for these reasons:—

"First, the human surgeon penetrates to the seat of disease invariably by an incision through the skin or common integuments by a scalpel, or cold steel in some shape or other; *blood* necessarily follows; and hence a physiological view of the circulation within the vessels is veiled from his sight. On the contrary, in my operations upon horses by cautery lesions, for the removal of chronic lamenesses, consisting of thickened ligaments, tendons, and especially spavin, this last disease being a chronic tumour upon the hock joint, I invariably make an incision through the skin in its centre, from top to bottom. This is also effected by a steel instrument with a knife-like edge, but, observe, *red hot!* The instant the skin is severed, a considerable dilatation of the lips of the wound ensues, the tumour is exposed to view, and, in three instances out of four, without the escape of a single drop of blood, or stain sufficient to soil a white handkerchief, and notwithstanding the horse's hide at this part is very thick; the subcutaneous tissues continue for the space of several minutes, presenting a most interesting spectacle to the inquiring physiologist, as regards the smaller bloodvessel system. Secondly, that veterinarians, generally speaking, do not practise these deep cautery lesions.

The cellular membrane and fasciæ gave an aspect delicately white, upon the surface of which is to be seen a beautiful network of bloodvessel, highly injected, forming a complete arborization, the skin having receded without affecting their integrity, and the efflux of blood from the highly vascular skin itself being most effectually prevented by the sealing effect of the cautery."

Such opportunities have borne the following fruits.

Mr. Turner's object was to ascertain the condition of the blood *in* the living vessels.

"But as victim upon victim would be necessarily involved in this undertaking, I paused, deliberated, studied, and, I hope, with Christian feeling, upon the least possible amount of animal suffering. I then applied myself to the invention of a mechanical apparatus, the instantaneous spring of which I intended should seize within a barrel, about an inch and a half in length, or more, of either of the larger arteries which might be preferred (the carotid for instance), of any living healthy animal, the machine being so constructed that each extremity of the barrel or spring clasp should act simultaneously in the constriction of the denuded artery. The reader will now, I trust, be prepared to allow me to utter my protest against the old mode of exploring the contents of living arteries.

I mean to contend that the process hitherto employed has been *too slow to have been certain*, and that the experimenters have been deluded. Even the indefatigable Hunter lost the race when he undertook to imprison the vital current in its normal condition within the living vessels.

A more subtile fluid in the natural state of the animal traverses his arteries than has been dreamed of by physiologists of the two last centuries; and I flatter myself that I am in a condition to maintain this bold position by actual demonstration."

That demonstration is found, or supposed by Mr. Turner to be found, in the experiment we shall quote, and in some other similar experiments to which we do not think it necessary to allude.

Experiment.—A horse, he writes, eleven years old, in fair condition, about fifteen hands two inches high, three parts bred, was cast. A longitudinal incision of about three inches in length was made in his neck, on the off side, in the direction of the carotid artery, and deepened with the greatest caution, to avoid an unnecessary flow of blood from the capillaries, till about an inch and a half of the trunk of this artery was denuded. On being exposed to view, its pulsation was distinctly felt.

Very little blood had escaped up to this stage of the operation; and during the time ocupied in pulsing the artery the bleeding quite ceased from the minute vessels. The connexion of the artery by its cellular tissue to the surrounding parts having been removed to a length corresponding to the contemplated embrace of the instrument, my newly invented apparatus was now placed under the carotid, the artery pulsating strongly, and the instrument seized the vessel instantaneously, to my entire satisfaction.

At this juncture the operator and patient may both safely have a few moments' respite: the object sought after is isolated, and securely locked up within a case, the calibre of which being sufficiently ample to avoid the slightest compression of the imprisoned artery, except at both extremities, which are hermetically sealed by the sudden constriction of the instrument. Ligatures were now passed round both ends of the carotid, above and below the machine employed.

Without further delay the apparatus with its contents was detached from the living animal by severing the carotid artery with a pair of scissors, as closely as possible to each extremity of the instrument.

The 'casket' was placed in a medium temperature, and stationary, until four hours had elapsed from the moment of the incarceration of the artery. The contents of the detached portion of the artery were then examined.

"Without pretending to anticipate whether the vessel contained anything or not, I fortunately had the precaution to place it upon a dish. One extremity of the artery was now opened by slackening the instrument, and a small quantity of fluid instantly escaped with a slight jet. The stream was minute and momentary, of a bright scarlet colour, and of remarkable tenuity, and was dispersed in

a splash over the surface of a small dish, appearing at the moment homogeneous, but it instantly separated into two distinct parts, red particles, (I do not say, globules) and a transparent liquid, thin and almost colourless, exactly resembling condensed vapour. The red particles did not float, but gravitated.

Of course, I most anxiously watched this interesting fluid, thinking it might be fibrin in solution, or held in suspension; but, strange to say, no part formed into a clot—no jellying—no solidification: not a particle would adhere to a pin's point, or even to its head. I then slit open the artery, and found it perfectly empty, not omiting to examine most minutely the parietes of the artery at each end, which had encountered the instantaneous grasp of the instrument; but not a particle of *congealed* blood was imprisoned even there.

Now, to return to the red particles as they appeared to the unassisted eye, and I do not pretend at present to offer a microscopic description; in fact, I am much at a loss how to describe these bodies. They were of a florid, crimson hue, and very much resembled, in shape and size, the sediment of old port wine, as it appears at the bottom of a wine-glass, after receiving the drainings of the last drops from the bottle; but of a brighter red colour.

Here arises a vital question. Was this blood? I answer, that it was *not*, according to the general acceptation of that word. But before it can be pronounced what it was, a phalanx of talent must be energetically employed—a new system of investigation must be instituted—the researches of the chemist, in conjunction with the most dexterous, patient, and industrious anatomists, aided by the microscopic field; and when all these lights have been brought to bear, we may, perhaps, be reluctantly driven back to the reconsideration of the theory of the ancients."

Mr. Turner remarks, in reference to the physiologists who have preceded him:—

"They have always found, that upon blood being spilled from the vessels of a healthy animal, whether from artery or vein, it has quickly assumed a solid form. When, actuated by the spirit of experimental inquiry, they have imprisoned the blood of the living animal within the large trunks, either of arteries or veins, between two ligatures, and after the lapse of three or four hours, upon slitting them open, they have invariably found the blood coagulated, and of a dark colour (vide Hunter, Sir Astley Cooper, Majendie, and others). But when I lay bare the carotid artery of a living animal, availing myself of the aid of peculiar machinery, and *isolate* about two inches of the vessel, with its contents, *instantaneously*, and thereby catch the containing fluid flying, or in its transit, and, after allowing it to remain quiescent in a temperature of sixty degrees, for three or four hours, then slit the vessel open, what do I find—a fluid? Yes. Is it blood? I do not know;—it appears to the eye like condensed steam or vapour of a bright red hue, extremely thin and trsnsparent; the colouring particles gravitate, and a limpid fluid floats on them; not a particle of coagulum is to be seen nor detected hours afterwards; the red particles adhere tenaciously to the dish, but the delicate fluid evaporates rather quickly."

And he adds:—

"It was my design, in conducting this experimental operation, besides effecting the *sudden* stoppage of the arterial and venous systems throughout the organ, also to effectually retain within the vascular tissues the full quantum of the blood's *gas* or *steam*, as well as the blood itself, which naturally and properly belonged to the detached testicle; and I think I perfectly succeeded.

I am quite aware of the exclamation this must call forth! What can this writer mean by his 'blood's *gas* or *steam*?' I answer, fearlessly and without reserve, that I believe the present generation of philosophers are doomed to the humiliating task of retracing the steps of the ancients upon more important points than one vitally connected with the animal economy.

Those of the very old school have reiterated that no perforation, however

small, can be effected in a living bloodvessel without the *instantaneous extrication of vital air;* and they go on to say, that the escape of the blood, which is so evident to our optics, is a necessary sequence of the communication thus opened between the vessel and the atmospheric air.

I have been brought up legitimately in the new school, but by a long persistance in experimental inquiry, I am constrained thereby to go over to the old school, as regards the physiology of the blood."

If any body has a chance of finding a real *mare's* nest, it must surely be a veterinary surgeon. We will not say that Mr. Turner has found one, yet we cannot but suspect that he has. The old hypothesis of the presence of the vital air in the arteries, preposterous as it was in most of its details, was mainly founded on the empty condition of those vessels after death. Mr. Turner's experiments would go to establish that they are almost empty of blood during life. This seems contradicted by the senses—appears to be upset by the simple procedure of puncturing an artery and letting the blood flow from it. "Aye," but say the patrons of the *airy* notion, "the spirit is let out by the material puncture, and the contact of the atmosphere produces, we will not state how, the flow of blood." But suppose an artery were to burst into the interior of the belly, or of the cranium, or in a limb. The atmosphere does not gain access to the vessel—the spirit cannot get abroad—blood should not escape, and coagulate, and do all that blood is in the habit of doing in a basin. Yet it does all this, notwithstanding the opposition of the ancients and of Mr. Turner.

The most obvious solution of Mr. Turner's experiments appears to us to be this—*that*, either his apparatus prevented the blood from getting *into* the excised piece of artery, or let it *out* again. In short, we suppose that there is *some* fallacy *somewhere*, and would urge Mr. Turner himself, a gentleman of evident intelligence, to go to work and find it out.

On the Morbid Effects of Deficiency of Food. By Dr. *Howard.*

Our author had extensive opportunities for observation on this subject, during an eight years residence in the Royal Infirmary and Poor House of Manchester. This little brochure will be of more service to the public than to the profession whose members may be supposed to know the various deleterious effects of deficient nourishment. The public in general, however, have very inaccurate ideas on this point, and know little of the miseries to which the indigent are liable in our manufacturing towns.

Deficiency of food, indeed, is less prone to produce actual disease, of itself than to predispose to, or excite numerous other diseases. We are informed by Dr. Howard that, with the exception of a few particular branches, the earnings of those employed in manufactures, are sufficient, with prudence and economy, to provide wholesome food and "all the necessaries of life."

"But these classes are notoriously improvident: even in times of the greatest prosperity, they rarely show any disposition to practice economy in the management of their household, or have the prudence to make any provision for periods of sickness, or other accidental causes, which may occur to put a stop to their earnings. A large proportion even of those who regularly receive high wages are constantly in a state of the greatest poverty, and often bordering on actual starvation—their houses are almost destitute of furniture, comfortless, and uncleanly—too often damp, cold, and ill-ventilated. Many of them live in dark cellars, in the midst of filth and putrefaction, by which the atmosphere is rendered foul and unfit for respiration—a due circulation of air being imposible. Their families are ill fed, scantily clothed, and badly lodged; three or four persons being frequently crowded together in the same bed, which is often filthy, and deficient of covering."

Thus there is little chance of improving the physical condition of the labouring classes, without improving their moral character. And yet our aristocracy refuse the means of cultivating their minds, unless they renounce their religious creeds—which is well known they will not do! These people are extensively intemperate in their habits, laying out the greater part of their earnings on drink instead of food They thus lose all relish for plain, nutritious, but insipid articles of diet, and fly to those that are savoury and piquant. The digestive organs soon become impaired—disorder of the gastro-intestinal mucous membrane is induced, and the foundation of various diseases is laid. The sedentary employments in heated apartments—the sudden transitions into the damp cold air—and defective clothing—give fearful activity to intemperance and innutrition.

"The injurious effects of the above habits and mode of life, are abundantly evident in the squalid appearance—the pale and haggard countenance, premature old age, the slender frame and general deficiency of muscular development as compared with the labouring classes in an agricultural district. They are feeble and languid; their appetite is often capricious and defective; their nervous systems alternately morbidly excited and depressed, whilst their muscular and vascular systems evince a want of tone and power."

The symptoms indicative of defective nutrition are such as we might expect, viz. languor, exhaustion, distressing feeling of sinking at the præcordia, chilliness, vertigo, and tendency to syncope.

"The emaciated appearance of the patient, his pallid and inanimate countenance, the pale blue colour of the conjunctiva, and the unsteadiness of his movements, are the most striking external signs of this state."

Decrease of animal temperature, feebleness of pulse and voice, whiteness of tongue, constipation, limpidity of urine, langour and dulness of intellectual as well as physical powers. If the causes are continued, the symptoms become aggravated, and alarming nervous symptoms are added, as an overpowering feeling of prostration, and loss of muscular force. Irregularity of respiration and circulation precedes lethargy, coma, and death.

It may be easily imagined that fevers and many other diseases are predisposed to, if not generated by, causes capable of producing such dire phenomena as those above-mentioned.

Our author thinks that it is vain to look for any advance in mental culture among the poor till we have first improved their physical condition;—in other words, we must make the poor comfortable in their circumstances, before we can hope to cultivate their understandings. But we apprehend that this is beginning at the wrong end—and moreover, that the task is utterly hopeless. How can the state raise the masses from poverty to comparative affluence? It is impossible. No. The masses must raise themselves by economy and industry. And it is by imbueing their minds with useful knowledge that they will learn the value and the necessity of this industry in acquiring, and of economy in husbanding, the earnings of their daily labour.

"It requires little penetration to foresee, that no system of education can prove generally beneficial to the poorer classes, which does not at the same time inculcate the necessity, and provide the means of relieving their poverty, *ameliorating their physical condition, and supplying them with the common necessaries of life*; for whilst they are suffering from the depressing effects, both moral and physical, of inadequate nutrition, they are little fitted to receive benefit from those means of acquiring intellectual improvement and useful information, which the more wealthy classes are now so zealously endeavouring to afford them. It is of the first importance to encourage habits of economy and temperance, to enforce the necessity of a provision for their physical wants, and to impress upon them the certainty of bad health and mental inferiority being the consequences of any neglect in this respect.

The first step towards improving the mind, is to preserve the health, by providing efficiently for the wants of the body."

If the state itself, and every rich individual in the community, were to "provide efficiently for the wants of the body," amongst the millions of idle, vicious, and intemperate people in this country, it would only be holding out a bonus to the classes immediately above them to cease from their labours, as their wants would be "efficiently provided for" by their humane neighbours and the parent state! No, No. The thing is utterly Utopian, and would be injurious in the end, even if it were practicable at the beginning.

There are several chapters on which we have not touched, but which will repay perusal. With the exception of the passage which we have just quoted, we fully agree with the talented author, in the views which he takes of the various subjects discussed in this little pamphlet.

The Danger, Irrationality, and Evils of Medical Quackery; also, the Causes of its Success; the Nature of its Machinery; the Amount of Government Profits; with Reasons why it should be suppressed: and an Appendix, containing the Composition of many popular Quack Medicines: addressed to all classes. By *Charles Cowan*, M. D. E. & P. M. R. C. S. E., &c. Octavo, pp. 43. London, Sherwood and Co. 1839.

We need not tell the Profession that Quackery is an evil. Were the public possessed of common sense in medical matters, *it* would be aware also that quackery is an evil.

If the public refuse its assent to this, it is because the public is profoundly ignorant of the nature and scope of medical science, and of the properties of drugs.

Quackery is a nuisance in many ways. It is a nuisance, because it is a system of lies and imposture, and swamps the community with hosts of rogues and fools. The commonwealth must suffer morally, and cannot but be damaged by the vagabonds that quackery lets loose upon it. Quackery is a nuisance, because it tends to create the ills it feeds on; and, affecting to cure all diseases, it produces, or perpetuates many. And, finally, quackery is a nuisance, because it fosters erroneous ideas on the operation of drugs, begets a system of deceit which even the profession is involuntarily obliged to humour, and abases, what is so requisite for the happiness of men, the art of medicine itself.

It is generally imagined by the public, that the antipathy of the profession to quackery originates in a feeling of self-interest, and that quacks take their bread from medical men. We more than doubt whether this is true. If the faculty lose and quackery gains a particular case, that is amply compensated by the ill-health which quackery produces in thousands, and the disposition to fly to physic which it generates in millions. On the whole the profession probably gains by quackery—certainly its loss must be very trivial. A feeling of self-interest can sway the profession very little either way, and its antipathy to quackery must be sought on other grounds.

We should say that our aversion takes its rise in a natural feeling of disgust, at a barefaced system of humbug. Unless men's minds are warped by the strongest motives towards wrong, they revolt at witnessing it. We see a knot of rascals fleecing and injuring the public by the most dishonest and scandalous arts. We naturally evince contempt and indignation towards the miscreants. And those feelings are aggravated by the tendency of such practices to bring discredit and dishonour on the science we profess. Are not these sufficient, natural, and worthy motives for resentment? We wish that all class-quarrels were as honest and as praiseworthy.

The object of Dr. Cowan is to argue the question of quackery with the public. He must not anticipate speedy benefit from that. Yet we think that no harm

and some good can be effected by strong and repeated appeals to the public reason; and we think too that such appeals must ultimately influence the legislature. On this account, we shall devote some pages to the subject, and recur to it on future and fitting opportunities.

As the battle will be fought ere long in the Parliament, it is right to take up the more striking fallacies that are urged by empirics in favour of themselves, and in disparagement of us. Among those fallacies, perhaps one of the most plausible is this, *that*, there are no certain truths in medicine, and consequently no tests of what is right or wrong. Dr. Cowan thus handles this argument:

"We are aware that in opposition to this simple but just view of the case, it is very commonly urged, that medical men are often incompetent to the task assigned them, that doctors are perpetually differing among themselves, and that no fixed and invariable rules of practice have been decided upon. Now, admitting, to their fullest extent, these pleas of the unqualified, they prove nothing more than the intrinsic difficulties of the right application of medical science, and the additional necessity of securing the highest possible amount of information and experience for those who have so complex a problem to solve. Unless, indeed, the public are willing to admit the absurd conclusion, that in a subject where great difficulties and uncertainties are to be encountered by the most skilful, as is the case in medicine, that therefore it is a matter of indifference whether the individual attempting its application has any knowledge of it or not; and that it may, from the very fact of its obscurity, be equally committed to the care of the ignorant, as of the well-informed! But surely such an outrage upon common sense can scarcely be openly propounded and espoused in the 19th century, though it is practically and successfully acted upon among a too easily deluded population."

We grant at once that we know nothing à priori of the properties of medicine. That knowledge is only to be obtained by experiment. The quack may discover a valuable remedy. But the quack never can safely *apply* it. Men's constitutions differ; the same disease is different in different individuals; it differs in the same person at different times; the same remedy may be good, inefficient, or injurious, with these varying circumstances. How can the quack, that is, a man not educated to appreciate such circumstances, rightly employ any powerful drug?

Whatever may be said in favour of empirical remedies, it is difficult to assign any solid reason for permitting *secret* nostrums to be vended. If any one out of the profession has really discovered a valuable medicine, its nature should be made public. "Oh," but say the advocates of quackery, "that would prevent the discoverer from reaping his legitimate reward." Were all secret remedies, or were a fair proportion of them really important—were they bonâ fide discoveries—this argument would carry some weight with it. But the fact is, that secrecy of composition is employed to conceal the inert or the dangerous nature of the drug. For one such nostrum which deserves to be prescribed there are a thousand which possess no peculiar merit. Secrecy is an engine of delusion, fraud, and mischief—as such it is resorted to on a frightful scale—and an honest government should refuse to sanction it. In this world we never see unmitigated good or evil—our courses are usually determined and attended by the preponderance only of one or the other—and the rule of legislation, as of private conduct, is to adopt that plan which has the balance of benefits on its side. The secrecy of quack medicines, is in the main a shield for roguery, and a means of inflicting great moral and physical evil upon the people.

In an appendix Dr. Cowan subjoins the composition of some of the more celebrated secret medicines. They are all of nearly the same kidney. Magnificent titles usher in the long catalogue of frightful diseases which they cure, and we naturally expect that their ingredients should exhibit a startling potency. Every body has heard of the *Balm of Gilead*. Few diseases can resist its powers, and even old age grows frisky under its use. This marvellous medicament is—

"An aromatic tincture, of which cardamoms form a leading ingredient, made

with brandy. Cantharides are supposed to enter into its composition. It need scarcely be remarked, that taking such a medicine is only another mode of dram-drinking, and its effects in every respect similar."

Who amongst us is sufficiently aware of the virtues of cardamoms, brandy, and cantharides? How many maladies this balsam must assuage! But even the wondrous Balm of Gilead yields in efficacy to the "Elixir of Longevity." That insures to its regular purchaser a term of life far exceeding three-score years and ten. Government annuitants are known to consume it on a liberal scale, and it is to this we are to attribute the curious physiological fact that they never die. Our admiration of the effects of the Elixir is lost in our astonishment at its composition:—it is "an aromatic tincture, with aloes."

"What great events from little causes spring."

We think we have disposed of the argument, that to put down empiricism would be to check discovery. Empiricism, in the present day, furnishes no discoveries. The spirit of rational observation is so universal, the theories which trammelled the minds of the profession so broken and powerless, that novelty as novelty is no longer repudiated. We do not owe to empiricism the new remedies of merit and power which give a distinguishing feature to our practice. It is not from quacks, but from the sister-science of chemistry that we have obtained iodine, and quina, and morphia. Quackery and secrecy bring few or no recruits to our Pharmacopœia. A glance at the patent medicines, and an analysis of the secret nostrums, prove that they are composed of familiar drugs, often ridiculous, often unsafe. Any possible good which their encouragement can afford to science or the public is too minute for calculation; the evil is staring, prominent, and frightful.

The quack, relying on the mystery which shrouds his dose, unblushingly prescribes it under every circumstance. He has taken measure of human gullibility, and he knows that the more he puffs his pill, the greater its virtues will be thought. The following are a few of the more modest advertisements of cough medicines, culled by the industry of Dr. Cowan.

"1. *Dropsy and Consumption cured!*—by a physician. The new system triumphant! The most extreme cases being daily cured by it with great rapidity, as reference to patients will prove. So satisfied is the discoverer of the certainty of his success, that he is willing to forego his fee for *advice until after* they are cured!

2. Godbold's vegetable Balsam, for the cure of *Coughs*, *Colds*, *Asthmas*, and *Consumptions*. This medicine has stood pre-eminent for the last fifty years, as the only specific ever discovered for eradicating that dreadful malady consumption. It has never been known to fail of success, when taken upon the first attack; and *is acknowledged by the faculty* the *only* medicine for subduing a Phthisis!!

3. *The Occult Lozenges!* are a preventive and a destroyer of the incipient seeds of corrupt consumption, &c. &c. *Seventy years' experience!* has placed their beneficial effects beyond the shadow of a doubt, having in *no one instance* during that long period!! fallen short of the *desired result!* (viz. enriching the proprietor).

4. The cheapest and best medicine for coughs, colds, and asthmas. *Church's Cough Drops*. for recent colds, obstinate coughs, and confirmed asthmas, stand unrivalled. Congealed phlegm, acrimony in the fluids, and obstruction in the glands, are gently and safely discharged by easy expectoration.

5. Coughs, asthmas, shortness of breath, weasing, colds; soreness, tightness, and oppression of the chest; and most affections of the chest and lungs relieved in *ten minutes* by *Woodhouse's Balsam of Spermaceti!*

6. For coughs, colds, asthmas, hoarseness, difficulty of breathing, hooping-cough, &c.—*Collis's Essence of Honey*, &c. &c. &c. If it be in the power of medicine to stop the ravages of that cruel disease, consumption, Collis's essence of honey will effect it!

7. *Mulready's Cough Elixir.*—One dose is sufficient to convince the most

scrupulous of the invaluable and unfailing efficacy of Mulready's cough elixir; the paramount superiority of this medicine above every other now in use, for the cure of the above complaints, only requires to be known to prove the passport to its being ere long universally made use of for the cure of every description of pulmonary affection!

8. *Simco's Chemical Essence of Linseed* is universally allowed to be the best and most efficacious medicine in the world! for coughs and pulmonary affections.

9. *Aldridge's Pectoral Syrup*, an admirable and agreeable specific for coughs, colds, and all affections of the chest and lungs!

'A physician in this city, in most extensive practice, whose name alone gives to it a pre-eminent recommendation, and to whom the secret of preparing it was imparted, gave as his decided opinion, that it was a valuable preparation, and could not fail affording to those who gave it a trial immediate and permanent benefit!!"

Can any Legislature, can any Government, connive at such a system of lies? Can any quantum of revenue compensate the public for the inundation of physic and of falsehood poured on it by these unprincipled vagabonds? It must be a large sum that can be weighed against the mischiefs of such fraud. Our readers will be astonished at finding that sum comparatively trivial.

"The following is a correct statement of the profits which government derives annually from the sale of Patent and Stamped Medicines. Our information has been obtained at the government offices, and may therefore be depended upon:—

Stamps (about 3½ millions annually)	£30,000
Advertisements	10,000
Licences	4,000
Wrappers (*i. e.* duty on paper) . . . about	5,000
Patents . . . . . say	300
	£49,300

For additional details see our 'Observations on Quackery' before referred to. We have taken the highest averages, and the real sum received we are satisfied is less than what we have now stated. Cattle Medicines are not stamped, and only those cosmetics, as Rowland's Kalydor, which pretend to some healing properties.

'Except,' says Dr. Maunsell, in his recent pamphlet on 'Political Medicine,' 'in the instance of the county infirmaries of Ireland, and of sick prisoners in the public jails, the government in no way interferes with the providing of medical aid for the people. They may have it or not if they please, and how they please,—it is a matter with which neither whig nor tory concerns himself, further than to take advantage of human weakness, and of the ignorance which both parties have encouraged, for the purpose of wringing from the sufferings of the diseased a few paltry pounds of revenue, by the tax upon patent medicines and stamp upon diplomas.'"

Thus the Government values the health and the morals of the commonwealth, at something less than 50,000 per annum!

It is naturally asked why quackery thrives, if there is so little in it as the profession says? The answer is obvious. The bulk of men know nothing of medicine, and in medical matters are fools. Quacks are wise in their generation. They know that no humbug is too gross for the public. They are aware that they have only to promise impossibilities, and plenty of dupes will be found to believe them. The advertisement system is craftily worked, and it bears a golden fruit.

"Advertising," says Dr. Cowan, "is the main-spring of empirical success, and it is only necessary to be in possession of sufficient funds for the purpose to ensure the sale of any remedy whatever. Thousands are occasionally risked in giving publicity to a nostrum, and the returns are in proportion to the courage

of the speculator, his happy adaptation of his remedy to what he knows to be prevalent diseases and popular impressions, and to his more or less indifference to truth.* The facilities for extensively advertising are, however, far greater than is generally supposed. The leading journals of the metropolis insert very few quack advertisements, for the simple reason that the proprietors themselves are not venders of patent medicines, and because they require cash for quack as well as for all other announcements. It is chiefly in the provincial papers, and in the less influential London journals, that the quack advertises, the proprietors of these frequently becoming joint-stock-partners in his trade. The newspaper office is virtually his shop, and the sale of the nostrum is often the sole security for the payment of advertisements, the proprietors persisting in zealously advertising as the only means of securing remuneration. Many of the latter have large stocks of medicines on hand, which occasionally become valueless by the rapid sale of some more successful competitor for public favour. Journals just commencing, or of very inferior circulation, not only insert puffs of the empiric on these terms, but, sometimes deduct from the proceeds of sale only sufficient to meet the duty, and even this is occasionally paid by the newspaper proprietor himself, who seizes upon a quack advertisement as the only means of filling up his empty columns, and giving to his paper a factitious appearance of importance and wide circulation. It is evident from this that the quack wields a fearful power in the public press, his expenses are often little more than nominal, while he secures the agency and interests of the newspaper proprietor in his behalf;† and thus the very means by which the public mind should be directed and enlightened, is converted into a source of incalculable mischief. It is to Government—not to the press—that we must look for improvement—journalists are but men; and the temptations must be removed, before the evil is effectually remedied.‡"

This gives but an indifferent view of the morality of the press—the fourth estate. But if the three estates are little better than accessories to the quack it would be hard to expect much else from the fourth.

The grand panacea for our political diseases is the spread of intelligence and education. The waiters on Providence refer us to this as the real remedy for quackery. But unless education embraces medicine, and intelligence grasps physiology and pathology in its embrace, we do not understand how they can assuage the evil. The Charlatan appeals to medical ignorance, and medical knowledge alone can confute him. If general intelligence and information sufficed, then the educated classes would not patronize empirics. But the educated

* "The cost for advertising quack medicines in the United States, annually, is estimated at 200,000 dollars. A peck of pills per day is considered necessary for Boston, and half-a-bushel for New York. On an average, only one in twenty-five who take them is actually sick, and the proportion of those dispensing with some necessary of life to purchase nostrums, which do them a positive injury, is in the ratio of eighty-seven to every one hundred throughout the country.—*Spectacle Secrets.*"

" † The editor of the Medical Gazette sent to the principal London papers a short account of the composition of Morison's pills, and some illustrations of their bad effects. The Times and Albion were the only journals which gave insertion to the article. The proprietors are afraid of offending the quacks."

" ‡ For the purpose of estimating the proportion of quack advertisements to all others, we have caused them to be counted in the extensively circulated provincial papers, and in some of the London Journals, and find that out of about 2000 of all descriptions, about 200, or one-tenth, are empirical. In Scotland the proportion is one-half less, and in Ireland still lower; but adopting the highest standard, the profits to Government from quack advertisements would amount to about £10,000 per annum. The general advertisement duty for Great Britain, for 1838, was £101,939. The present rate of duty is 1s. 6d."

classes are in medical matters the greatest fools. Their affluence both renders them timid in all that relates to their health, and willing to pay for what promises its restoration. The St. John Longs, and Morisons, and all that fraternity, have found their warmest friends in the aristocracy of England. They display an admirable sagacity in discovering and rewarding empirical merit. Few, perhaps, in the profession, have heard of the immortal Cockle. That illustrious man has invented an antibilious pill. We will not at this instant pronounce upon its composition. No doubt its antibiliousness is of the very first water, for the advertisement of its noble patrons presents us with a list of 8 dukes, 7 marquises, 17 earls, 8 viscounts, 17 lords, 15 bishops, 6 right honourables, 17 baronets, 5 reverends, several members of parliament, and others less distinguished; all to be regarded as vouchers for the efficacy and value of the remedy.

For the present we conclude with the following quotation:—

"That legislators *ought* to provide to the utmost of their power for the public health may be argued on the common principle that the national prosperity and the national health are intimately connected, and the same motive which demands a distinct provision for acquiring a knowledge of the healing art, equally involves the duty of suppressing the practices of those who act without such qualification.

The object of an authorised medical profession is not to forward the interests of a particular body of men, but to benefit the community; and legislative efforts to exclude the ignorant empiric are not for the purpose of advancing the interests of the medical profession, but, to secure the public from imposition and injury. It is upon this principle that all measures for the suppression of Quackery should be founded, for if it could be proved that no injury was sustained by the population in consequence of its prevalence, then there would be little or no urgent reason to agitate the question at all; but since fatal experience has proved over and over again that the public are the sufferers to a fearful and untold amount, it becomes the unquestionable duty of Government to do all in its power for its diminution and suppression, and enactments for such a purpose are in strict accordance with the soundest principles of public liberty.

We are anxious that this view of the question should be clearly understood, for the whole subject has too often been regarded as nothing more than a scramble for loaves and fishes, an effort on the part of medical men to increase their own gains and to diminish those of their less qualified competitors. Such is not the fact, for it is, at best, very doubtful whether the medical profession, in a pecuniary sense, would gain at all, or whether they would not lose by the suppression of empiricism—the latter inflicting such extensive injury upon the popular health. But supposing their pecuniary interests *were* at stake, this is surely no argument for medical men being passive, for if their cause be rational and just, if it involve the general welfare, and if circumstances render them the fittest and only competent agents for its prosecution, it is a false delicacy and a feeble morality to be deterred from their purpose, because, success includes some increase to their individual or collective interests!

We again say, that medical men are alone capable of forming an accurate judgment of the fatal effects of empiricism, and of clearly pointing out why it should be suppressed, they are, therefore, morally as well as ex-officio, bound to express firmly and openly their opinions, and to expose to the utmost of their power the nature and extent of the evil. As a nationally constituted body, they might with justice (and as an individual we conceive they ought) urge their corporate claims to national protection, but, we freely admit that the general welfare of the community, and not that of any particular body of men, should be the leading motive for all legislative interference, and we have demonstratively shown that such a motive exists in all its force in the instance we are discussing."

We would advise our brethren, individually and collectively, to prepare for an effort to break the neck of quackery. Let them collect information, systematise and embody it in a presentable shape, familiarise the minds of their senatorial friends and patients with the frauds and the crimes of empiricism, and prepare to address the Legislature firmly. We do not despair of quackery being put under the ban of public opinion. That it will always exist we know well, for credulity is too deeply rooted in the human mind ever to be thoroughly plucked out. But quackery at present rears its head too high, and affects a degree of equality with physic, which ought no longer to be tolerated.

SPIRIT OF THE FOREIGN PERIODICALS.

DECLINE OF BROUSSAISM IN FRANCE.

IN a recent biographical memoir of the medical reformer of the nineteenth century, as he used to be called by his admirers, we find the following most judicious remarks, which our readers will observe are in strict accordance with the opinion which the Medico-Chirurgical Review has uniformly expressed on the doctrines of the Broussaian school.

* * * * * "Thus the pains he took upon all occasions to connect the existing systems of a disease with certain suffering organs, to ascend thereby from the effect to the cause, and to take as the *point de depart* a rational and experimental demonstration, perhaps also the desire and secret hope to arrive at length at something fixed and determinate in medicine, contributed to impart a great value to the opinion of Broussais. Every one was struck with the sagacity of his criticism, with the depth of his observation, with the subtlety of his reasonings, with the boldness and connexion of his assertions, and especially with the grandeur and importance of the results which were promised, almost announced, as infallible.

What added to these causes of success was the dangerous *prestige* of pathological simplification and therapeutic unity, which pervaded the Broussaian theory: many allowed themselves to be led away by this attraction. A doctrine professing to be founded on two bases, irritation and *ab*-irritation, inflammation and sub-inflammation—or, in other words, the convenient but false dogmatic principle of mere *excess* and *defect* as a cause of all morbid action, supported too by the imposing authority and admirable connexion of its formularies, by the vast multiplicity of its facts, and by the rigour of its conclusions, seemed, and indeed must have seemed, to be of an almost unassailable solidity. There appeared at first sight to be a cohesion at once so strict and so profound of the priciples of this system, that a leading proof of its truth was drawn from this very fallacy. *Broussais* had a degree of boldness in laying down principles, and in drawing from phenomena the deductions which favoured his views, that all opposition was overthrown, and admiration extorted from his very opponents. It was thus that he contrived to give a more exact and neat idea of fever—that obscure phantom of every age—than had ever been announced before. By the aid of his method, the medical art seemed to be rendered altogether more simple, more methodical, and at the same time more easy and more rigorous; for the indication to be pursued was always there, always present under the eyes of the physician to guide and enlighten him.

Even the very use of those fascinating words, *progress*, *advancement of science*, *novelty of doctrine*, contributed not a little to throw a brilliancy around a theory like that of Broussais, especially at an epoch when the political passions were in some degree allied to the movements of scientific enquiry. The epithets of servile or liberal, advancing or retrograde, were most freely bandied about, according as a party admitted or rejected the doctrines of irritation and the localisation of fevers. *Broussais* understood well the art of drawing to himself the hasty, fickle, and enthusiastic temper of youth; and, having done this, he applied himself to attract the more thoughtful and reflective. The consummate address with which he well knew how to present to his followers, whatever was really true and useful in his doctrine, and to keep back whatever was doubtful, and thus to steer between what was strictly proved, and what was perhaps utterly incorrect, contributed not a little to captivate the minds of many of his followers.

We need not therefore be much surprised if, at the *apogee of physiologism*, this distinguished physician, intoxicated with the incense of popularity, and elated with his own thoughts, shewed a sort of hostile warring pride, erecting his own opinions as an absolute rule and standard, and summoning to his tribunal, examining, judging, and condemning all other doctrines. Hippocrates himself did not find favour with the reformer of the nineteenth century, and although he, like *Rasori*, has not called him the *father of error*, he looked upon him only as an old statue to be gazed upon by the multitude.

At the end of a few years however the halo of *physiologism* very sensibly failed: the puritans of this doctrine became less numerous and less zealous. It was perceived that *Broussais*, like all other reformers, was powerful in exposing error, but feeble in discovering truth. The objections, remarks, exceptions, and criticisms against the doctrine of irritation quickly increased. Medical men perceived that this morbid entity—so to speak—different in different diseases, not in degree only, but in its very nature and essential characters. To regard therefore a disease as a mere quantitative deviation from the healthy standard of the physiological condition was to lose sight of the abnormal character of diseased action. It was evident that there is far from being an identity of action in all inflammations; it is only apparent; for very often they differ from each other more in speciality or essence, than in mere degree. Again, it is utterly impossible to establish the localisation of morbid affections in very numerous cases; the sympathy of diseased action preventing us from recognising distintly the original seat, or *point de depart*, of the malady. *Broussais* and his followers too often confounded the effect with the primary cause of a disease, and at the same time forgot that there are other agencies or sources of disease besides organic lesions or changes of structure in a part. They entirely neglected the alteration of the fluids, henceforth indisputable, and especially that of the organ of organs—the blood; and they attached far too much importance to the *organism*, and too little to the *dyanism*, of the animal economy. Lastly, the therapeutic principles insisted upon by the new school of medicine were speedily discovered to be too often at issue with the actual results of practice; diseases got well under the use of means the very opposite to those recommended by the Broussaists; and the success of the *empirics*—the term is used in its hippocratic sense—was generally greater than that of the self-called *physiologists*.

It cannot be denied that the most potent cause of the decline of the Broussaian doctrines has been, that clinical experience has been found to be too much at variance with its promises and assurances. Physiologism is a plant which will not grow, unless it is constantly sprinkled with blood; the lancet is indispensable to its culture in all climates and seasons! Then too a most rigorous, implacable regimen was summoned to aid this means of cure.* Still the cures were certainly not numerous; irritation, that obstinate malicious being, continued to resist alike the assaults of bleeding and the blockade of starvation; and if it did finally yield, the strength of the invalid was reduced to the lowest ebb, and his recovery was slow and imperfect.

In illustration of these remarks, we have only to remind our readers of the etiology and treatment of many stomach disorders inculcated by the Broussaian school. Every *gastralgia* was considered a *gastritis*, and was subjected to a most rigid course of depletory and antiphlogistic treatment; thus numerous

---

* An anecdote is told of Broussais' practice to the following effect. A patient, who had for some time submitted to the starving system, called upon him and said: "Your regimen, Doctor, has pulled down my strength to the last degree; it is killing me; and I am dying of hunger." Broussais, after looking at him for some time, answered, "Well, you carniverous brute (bête carnassière), I will satisfy you; you may have a spoonful of broth in a tumbler of water."

cases, which might have been speedily relieved by the use of bitter and tonic medicines, were trifled with, or rather aggravated by, a protracted employment of leeches, ptisans, and such-like means.

Broussais had no doubt been led, at least in some degree, into this error of practice by having had chiefly under his care, during his early professional career, none but vigorous and robust soldiers. A mode of treatment that is well adapted to military practice will not suit that of large towns. This is a truth which is well understood, and most attentively acted upon, by all experienced practitioners, both of Paris and London. The more experienced the practitioner, the less does he employ the lancet and other depletory means.

Well, after some years of most brilliant success, the great reformer began to find that he was gradually losing ground; his work ceased to sell; his journal was discontinued; his writings were subjected to a searching *examen*, and occasionally to the flagellation of sarcasm and ridicule; and at length, the doctrine of irritation, abandoned to itself, seemed to be counted among the errors of bygone times.

A convincing proof of this was, that *Broussais*, when appointed one of the professors of the faculty, failed to attract to his prelections the crowds of auditors that formerly hung upon his lips to receive the creed of instruction, only a few pupils attended; and even they seemed to be influenced more by curiosity than by admiration. The necrology of physiologism was visibly written in this desertion. It was at this period of his career, when his repute as a physician was so rapidly declining, that he stepped forward as a promulgator of phrenology, displaying the same talents as a vehement and impassioned declaimer, and as a subtle and attractive reasoner, as had made him, at a former period of his career, *the* lecturer of the day.

All his former prepossessions on subjects more strictly medical, tended to engage Broussais in the advocacy of Phrenology. He associated every manifestation of life, whether in the healthy or diseased state, with certain changes in certain parts or structures of the body; in other words, he was strictly an organologist, alike in his mental and in his physical philosophy.

It was to the following-out of this principle too rigidly that all his errors, both as a medical man and as a metaphysician, may be traced. He could not conceive, and therefore he would not admit, that any phenomenon in a living body could possibly be manifested without a specific and organic action in some particular part of the body. It was thus that, to his mind, the existence of those symptoms, to which we give the appellation of fever, suggested the inevitable existence of a local lesion in some organ or another of the body,—forgetting all the while that the body may be suffering seriously, and at every point of its frame, without a necessary lesion of any particular texture or structure. The same is probably true of the mind. We do not dispute that there is a strict and most intimate connexion beween the state and development of the brain, and the exercise and power of the moral and mental phenomena of our being; but it is, perhaps, even more than doubtful whether there be so strict a localization —to adopt a Broussaian term—of the different attributes of the mind, as has been so ingeniously maintained by Gall and his disciples.

We are quite willing, however, to admit that the labours of the phrenologists have been attended with most marked and unquestionable good in all subsequent metaphysical and ethical inquiries, by giving a character of precision and exactitude to the description of mental and moral phenomena, and to the intimate connexion between them and the condition of our corporeal frames, which had been far too much neglected by all former inquirers. So it has been with the Broussaian system, in reference to practical medicine. While we call in question the absolute truth of its doctrines, and object to many of the conclusions which have been urged upon us, we cannot fail to admit that it has achieved a great and permanent good by directing the minds of medical men to a more minute

and searching examination of local and special changes than was ever done before.—*Gazette Medicale.*

M. SERRES ON THE BRANCHIAL RESPIRATORY APPARATUS OF THE HUMAN EMBRYO.

Every physiologist is aware of the high reputation of M. *Serres* as a philosophical anatomist, and will therefore read with attention whatever proceeds from his pen.

In the course of last June, he read to the Royal Academy of Sciences, a memoir on the above subject, from which we purpose to select some of the most interesting portions. It has always been a perplexing problem in physiology to account for the mode in which the respiration or purification of the blood in the early embryo, before the formation of the placenta, is effected. Passing over the conjectures of preceding inquirers, we may at once come to that suggested by M. *Ratke*, in 1825, and which was founded on his curious discovery of the existence of small fissures on each side of the neck in the young embryo. The resemblance of these fissures to the branchial apparatus of a fish, (*Blennius viviparus*) suggested the idea that their use might be analagous: hence the name of *branchial fissures* which this able anatomist gave to them.

The discovery of these fissures excited great attention among the German anatomists, and many at once admitted the correctness of their compatriot's views. M. *Serres*, however, by examining them with great care in the four classes of vertebrated animals, found reason to raise doubts, not indeed upon their existence—for that cannot be called in question—but upon their alleged use. He now distinctly states it as his opinion, that these fissures 'sont etrangères à la respiration de l'embryon,' and therefore that we must seek elsewhere for an interpretation of the mode in which this function is performed during the period of embryotic life, previous to the formation of the placenta.

The apparatus, by which this necessary function is performed, consists, in M. *Serres's* opinion, in the peculiar arrangement and mechanism of the investing membranes of the embryo.

His own words are:—"The respiratory apparatus of the human embryo is composed of the *chorion*, the two layers of the *decidua*, of the fluid contained in its cavity and of certain villosities or vascular appendages, which I have termed *branchial*, and which, traversing the substance of the *decidua reflexa*, come in contact with this fluid.

To explain the subject clearly, it will be necessary briefly to advert to the arrangement or disposition of the investing membranes.

Hunter has shewn that the *membrana decidua* is formed on the inner surface of the uterus, before the impregnated ovum passes along the ovarian tube into its cavity. When it reaches the uterine extremity of the tube, it pushes a portion of the deciduous membrane before it; and, as it sinks deeper, becomes more and more completely enveloped in the reflected portion, until at length it is entirely invested by it.

Thus the ovum acquires a double covering; one consisting of the proper *decidua*, and the other or inner one of the *decidua reflexa*. These two envelopes are separated by a fluid interposed between them. These facts have been satisfactorily proved by the researches of MM. *Burns*, *Breschet*, *Velpeau*, and others.

The ovum, which is thus enclosed, is covered on all its surface by the villosities of the *chorion*,—the vascularity of which, although often denied, is now placed beyond all doubt by the admirable injections of Dr. *Martin St. Ange*."

M. *Breschet* now proceeds to show that it is by the vascular tufts (*houppes*) on the surface of the chorion being brought into contact with the fluid con-

tained between the *decidua* and the *decidua reflexa*, that the respiration of the embryo is effected.

"To bring them into contact," says he, "and to complete a respiratory branchial apparatus, one of two arrangements might exist—*either* the *decidua reflexa* might be perforated, so as to permit the fluid to reach the vascular villosities; *or* these villosities might be incorporated in the substance of the membrane, and thus advance to meet the fluid (pouvaient s'engager dans l 'espaisseur de la membrane et aller elles-mêmes à la rencontre du liquide.)"

Now it seems that both these conditions really do exist; on the one hand, the *decidua reflexa* is found to be perforated with numerous holes; and, on the other, the branchial villosities on the surface of the chorion are, in fact, incorporated with this membrane, being lodged in sorts of channels of its substance, and are thus brought into contact with the fluid.

"Sometimes the branchial apertures in the *decidua* are obliterated by small masses of villosities covered with a membrane finer than the arachnoid; at other times the separation of the meshes gives rise to genuine fissures, through which the villosities pass, and are thus allowed to float in the fluid."

The following account of some anatomical examinations will illustrate these remarks.

In an ovum, at the commencement of the third month, the *decidua* was entire and unbroken in all its extent; an incision was made along its longitudinal axis, and the cavity—wherein about two ounces of fluid were contained—between it and the *decidua reflexa*, was laid open. This latter membrane was free on two of its sides, but adhered at its lower, back, and upper surfaces to the *decidua;* the adhesion above seemed to belong to the pedicle of reflexion. On the free portion of the *reflexa* I observed minute eminences, which rendered the surface somewhat rugous; and here and there, at the sides of these eminences, there were irregular areolæ. They (the eminences) proceeded from small flocculi, which floated on the fluid, and which became much more apparent when the ovum was plunged in the water. Examined with a magnifying glass I perceived that those eminences were the villosities of the *chorion*, which were engaged in the meshes of the *reflexa*, and, projecting into its cavity, were thus brought into immediate contact with the contained fluid.

In another dissection, we find the following account of the adhesion of the *chorion* to the *reflexa:* "The villosities of the former were depressed into small sinuses of the latter; these sinuses, being opened, were seen to terminate or debouche in the cavity of the *decidua*, which was filled with a fluid of a slightly reddish colour. The sinuses were occupied by the villosities of the *chorion:* these villosities projected somewhat into the cavity of the *decidua*."

Unless the examination is made with the most minute attention, the anatomist may be led to suppose that the villosities, which penetrate into the sinuses of the *decidua reflexa*, form part (faisaient corps) of this membrane.

This is not the case; they are quite distinct, and may, with care, be detached, the one from the other, without any rupture of either.

M. *Serres,* while he frankly admits that numerous anatomists have described the cribriform or perforated state of the *decidua reflexa*, states that no one has, to his knowledge, seemed to be aware of the arrangement now described—to wit, that these perforations are the open extremities of minute sinuses, and that these sinuses are occupied with the villosities of the *chorion*, which thus communicate directly with the cavity of the *decidua*.

Such is the apparatus or mechanism by which, according to M. *Serres*, the branchial respiration (so to speak) of the embryo is effected before the formation of the placenta which does not take place before the fourth month or therabouts.

He proceeds to give an explanation of the causes of early abortions, by attributing them "une lesion premiere de l'appareil respiratoire branchial."

His words are:—"Sometimes the hypertrophe of the *decidua* and *decidua reflexa* has the effect of obliterating their cavity, and with it the fluid contained; at other times there is an accumulation of this fluid, or a dropsy of the deciduous membranes. Most frequently, however, the branchial villosities become congested with blood, and a genuine sanguineous effusion, similar to what is observed in the brain or the lungs in apoplexy of these parts, takes place."—The following case is mentioned in illustration of these remarks.

An ovum, supposed to be about sixty days old, was discharged entire, and without any visible external laceration. The cavity of the *decidua* was considerably contracted, and contained very little fluid. The *decidua reflexa* exhibited at its inferior part a coagulum of blood, which was found to be invested with a delicate pellicle.

When this pellicle was divided, a laceration of the *decidua reflexa*, through which the villosities of the *chorion* and the sanguineous coagulum, was exposed; the rest of the surface of the *reflexa* exhibited numerous openings and fissures, which were occupied with the villosities of the *chorion*. At several points these villosities exhibited minute coagula of blood; effused, no doubt, from some ruptured vessels.

Some anatomists have questioned the existence of vessels in the villosities of the *chorion*; but the recent researches of M. *Martin St. Ange* have completely established the fact.

We come now to notice the changes which take place in the parts described above, when the placenta becomes developed.

"As the embryo enlarges, a part of the villosities of the chorion is transformed into a placenta, and then the second period or epoch of fœtal respiration may be said to commence. From the moment that the placentary respiration begins, the branchial respiration decreases, and the branchial apparatus becomes atrophied; first the branchial villosities waste away, the cavity of the *decidua* contracts, its fluid diminishes, and the two *deciduæ* finally come in contact and are united together."—*Gazette Medicale.*

M. FLOURENS ON THE STRUCTURE OF THE GASTRIC AND INTESTINAL MUCOUS MEMBRANE.

"I have shewn," writes this distinguished anatomist, "on a preceding occasion that the mucous membrane of the lips, mouth, and œsophagus is composed of distinct layers—the dermis, corpus mucosum, and epidermis. I now proceed to show that the mucous membrane of the stomach and bowels has the same structure. From the time of *Glisson*, at the close of the seventeenth century, to that of *Bichat*, it was generally maintained that the epidermis is wanting in the stomach and bowels; the mucus on their surface supplying, as it was thought, its place. The words of the latter physiologist are these:—'In the stomach and intestines the most delicate instrument cannot raise up an epidermis; no maceration or boiling has ever made it apparent to me; and I have applied an epispastic to a portion of the gut of a living animal, but no appearance of a pellicle could be discovered. It would seem, therefore, that there is no epidermic covering on these mucous membranes; at least its existence cannot be admitted until further researches; and these, I think, will prove rather against than for it.'

Beclard the learned commentator of *Bichat's* works has taken the same view of the question; and *Meckel*, the distinguished translator of them into German, has these words:—

"Epispastics during life, and maceration after death, equally fail in demonstrating the existence of an epidermis on the villous tunic of the stomach and

intestines. It is therefore very doubtful that such an epidermis exists; the formation of membranes, having the form of the canals from which they are discharged, may be explained in quite another manner."

Some, however, of the most celebrated anatomists of the last century, as *Ruysch*, *Lieberkuhn*, and *Haller*, maintained an opposite opinion; but it is by no means evident, whether they ever distinctly saw themselves, or showed to others, the existence of the epidermis in question. *Ruysch* termed it the *epithelium*; his description, however, is unsatisfactory, for it seems doubtful whether he ever succeeded in separating it from the villous coat. The only notice he makes of it is in these words; "we can see the villosities of this tunic without being obliged to detach the epithelium."

Lieberkuhn is certainly much more exact in his description than either *Ruysch* or *Haller*; and as his description may not be generally known, we shall give it here translated from the original Latin. "If a portion of intestine, previously slit open and well washed, be put into water, and kept there in a closed vessel for a sufficient length of time, a membrane, similar to the epidermis, will be found to separate; it does not so readily putrefy as the rest of the intestine. This membrane is indeed continuous with the epidermis of the skin, and it may be traced from the lips and mouth along the œsophagus, stomach and bowels."

Haller seems to have confounded the genuine epidermis with the villous tunic of the intestines.

M. *Flourens*, by following out the plan mentioned in the preceding extract, has succeeded in detaching the epidermis of the stomach and intestines not only in shreds and pieces, but in long continuous laminæ: he exhibited to the Academy two portions of small intestine, which exhibited in all their extent the epidermis of the villous tunic, altogether distinct and detached from this tunic.

This epidermis forms a continuous, fine, and transparent tunic. Its external surface is roughened with numerous minute projections, while its inner surface exhibits a crowd of small depressions or pits.

These pits and the projections indicate the points of the epidermis, which correspond with the papillæ of the dermis beneath, and serve as sheaths or coverings to these.

Between these two membranes—the dermis and the epidermis—is interposed a *veritable* corpus mucosum, which is somewhat thicker than the latter, and, like it, forms a continuous and most perfect covering to the papillæ of the dermis; thus protecting them from the immediate contact of the irritating matters to which the bowels are exposed.—*Gazette Medicale.*

TREATMENT OF LATERAL DEVIATIONS OF THE SPINE BY SECTION OF THE MUSCLES.

THE following letter was addressed last June to the Royal Academy of Sciences by M. *Guerin*, the celebrated orthopædist of Paris.

"I have the honour to communicate the first results of a new operation, which I have practised fifteen times, with success, in patients affected with lateral deviations of the spine. This operation consists in the section of certain muscles of the back—as the trapezius, rhomboideus, angularis scapulæ, sacro-lumbaris, dorsalis longus, and transversalis dorsi. I have demonstrated in my work on the deformities of the osseous system—to which was awarded the prize of the Royal Academy—that the greater number of articular deformities are the result of a convulsive retraction of the muscles of the part, induced by, and depending upon, an affection in some part of the nervous system, such as

the brain, spinal cord, or the nerves which are distributed on the contracted muscles.

This doctrine or position, the truth of which I have established as strictly applicable to the deformities of the neck, spinal column, hips, hands, feet, and other joints of the skeleton, has naturally led me to two important results—one etiological, and the other curative.

1. That the diverse forms, which the varieties of any deformity may exhibit, are induced by the retraction, varying in different cases in force and direction, of such or such muscles.

2. That the treatment of all and each of these forms and varieties should consist (*doit consister*) in the division of the tendons or of the muscles, to the retraction of which they are subject and attributable.

I had already proved the truth of these two conclusions in reference to wry-neck and club-foot, the treatment of which has been illustrated by so many cases in my own practice, as well as in that of other surgeons; and I have recently extended the same principle to the anatomical determination and to the surgical treatment of the several varieties of lateral deviation of the spine. I have put the truth of these principles to the test of actual experiment, having operated already on fifteen patients. They were of various ages—from 13 to 22 years. In all, the deviation of the spine was in the second or third degree of the disease; being accompanied with torsion of the column, and a proportional gibbosity. In some, a single section of the contracted muscles proved sufficient; but in others it was necessary to make two or three sections. In all of the cases, there was a marked *redressement* of the spinal column immediately after the operation; and in one case—that of a youth who had been subjected to mechanical treatment for a year and a half—where the *dorsalis longus* and the *transversales* dorsi were divided, there was an immediate *redressement* of all the deviation. In other patients I have been able to follow out, with uniform success, the treatment with the aid of mechanical apparatus.

In not one of the fifteen operations, which I have performed, has there been any accident—trifling hæmorrhage, little pain, no fever, and speedy union of the wound without suppuration, except in one case only. I shall have the honour of very shortly submitting to the attention of the Academy the particulars of my operations, and of the results which I have obtained."—*Gazette Medicale.*

CASES OF CLUB-FOOT SUCCESSFULLY TREATED BY OPERATION.

Case 1.—Mad. Bidaine, 37 years of age, had been affected with the *pes equinus* since she was five years of age. It was the result of an abscess in the ham and calf of the leg, which had left behind a permanent contraction of the tendo achillis. The consequence of this was, that the patient had never been able to put the foot fairly down upon the ground, but always walked on her toes. The size of the affected limb was much smaller than its fellow.

Notwithstanding the number of years that the deformity had existed, the patient was so anxious that an attempt be made to remedy her deformity, that Dr. *Lenger* determined to perform the operation of dividing the tendo achillis. On the fifth day afterwards, the adhesive bandage was removed, and the wound was then found to be cicatrised. A slight depression was perceptible between the divided ends of the tendon. The patient experienced a dragging pain in the leg, extending upwards along the thigh; the foot was somewhat swollen, and had, greatly to the surprise of the patient, already recovered in a considerable degree its natural position, forming now nearly a right angle with the leg. We should mention that a simple *bottine à tuteur* was worn by the patient. Before the end of the second week she could bend the foot at the ankle-joint; and

daily this movement became more and more easy. Whenever the boot was removed, the foot was immediately drawn into its faulty position, the force of the powerful extensor muscles being still much greater than that of the flexors.

It was indeed doubtful whether, at the patient's time of life, this predominance might ever be overcome. After the lapse of several months however, she was able to walk about with an ordinary boot; and although she still limped a little in consequence of a slight shortening of the affected limb, the foot had entirely regained its normal position.

The case may be regarded as altogether one of the most satisfactory proofs of what may be effected by surgical assistance in one of the varieties of club-foot.

Case 2.—Marie Lacomte, 11 years of age, was affected with congenital varus (the foot turned inwards) of the left foot. The tendo achillis was divided at about two inches above the heel. The *bottine à tuteur* was put on immediately after the operation. Everything went on favourably, and the deformed foot speedily acquired a permanent healthy direction. The cure was complete at the end of a month. Four months afterwards it was scarcely possible to perceive the slightest difference between the two feet in walking: for six weeks she had discontinued the use of the *bottine*, and had worn a common shoe.

Case 3.—A boy, seven years old, was born with *varus* of both feet. Every sort of bandage and apparatus had been tried to rectify the deformity; but in vain. Indeed, these attempts seem to have rather increased than diminished the tendency of the feet to turn inwards. The legs, especially the calves, were unusually small, and the feet appeared to be out of joint (*deboités*), the tibio-tarsal spaces being quite straight. On the 17th of July, the tendo Achillis of each limb was divided at about an inch and a half above their insertion into the heel. The *bottines* were immediately put on. These he continued to wear for several months. Ultimately a perfect cure was obtained.

Case 4.—A young man, 17 years of age, was affected with congenital varus of both feet. The deformity was very great, in consequence of the large bosses or tumours which the indurated skin had formed over the insteps. He had the greatest difficulty in walking any distance, and his situation was altogether miserable. In other respects, this patient was healthy and robust for his age.

Both tendons were divided at between two and three inches above the distal insertion; and the *bottines* were put on immediately afterwards. Large eschars formed over the insteps; but these gradually separated, and the ulcers healed up, although the *bottines* were kept constantly applied. In six weeks, he could walk about alone; and in two months more, he began to wear a pair of common boots, to which a semicircular steel strap was affixed. The cure may be considered as complete.

Dr. *Lenger* alludes to several other cases—in all 16—in which he has performed the operation of dividing the tendo Achillis. In every one of these, he has succeeded in removing the deformity; and in none has any disagreeable accident occurred.

In very young children, the deformity may certainly be often cured without any operation, and merely by the use of an appropriate bandage and of a boot, so contrived as to bring and retain the foot in a normal position.—*Bulletin Medical Belge.*

SPASMODIC CONTRACTION OF THE POPLITEAL TENDONS AFTER AMPUTATION; SECTION OF THESE TENDONS.

"A man, 64 years of age, had his leg amputated a twelvemonth ago for disease of the ankle-joint. The wound healed, and for several months the patient experienced no inconvenience. It would appear, however, that about the beginning of the year, the wound opened afresh, and that it has remained so ever since; it now presents an unhealthy fungoid aspect. There is no reason to suspect any disease of the bones. The muscles on the back of the thigh have been, for some time past, frequently affected with violent convulsive movements; and when the hand is placed upon the tendons of the popliteal flexors, they are felt to be as rigid as cords. The consequence of this is, that the stump is almost constantly drawn powerfully backwards."

M. *Velpeau*, under whose care at La Charité the patient was placed, was of opinion that the non-healing of the stump was mainly attributable to the spasmodic contraction of the flexor muscles; and he therefore determined to try the effect of dividing the tendons. This operation has never, as far as we know, been performed in such a case before.

Immediately after the operation, the limb was placed in an extended position; but there was still a tendency to a recurrence of the contraction, whenever the extending force was withdrawn. The patient, however, had no return of the convulsive shocks, from which he had long suffered.

Five days afterwards, the wound of the stump exhibited a healthy aspect, and the process of healing seemed to have commenced. (The report does not go further.)—*La Lançette Française.*

This hint may possibly be a very valuable one: we recommend our surgical readers to take notice of it.

M. ROUX ON LACERATIONS OF THE PERINEUM AND RECTO-VAGINAL SEPTUM.

Partial laceration of the perineum is an accident of very frequent occurrence in women who have borne children; but fortunately it is not of serious consequence, as Nature is almost always sufficient to effect a cure.

In some rare cases—where the vulva chances to be directed or turned forwards more than usual, and the perineum is therefore somewhat longer than is common—the rupture has taken place in the centre of the stretched perineum, and the head of the child has actually been protruded through the ruptured opening; M. *Moreau* states that there are at least 40 cases of this strange accident on record.

Of a much more serious and distressing nature is the misfortune of a laceration along the whole extent of the perineum, including the sphincter ani and perhaps part of the recto-vaginal septum. As might be expected, this lamentable accident is very generally the result of a first accouchement; and more especially in those cases where recourse has been had to the use of instruments. The condition of the patient soon becomes most miserable: the power of retaining the alvine and vaginal discharges is either entirely, or in a very great measure, lost; and as the efforts of unassisted Nature are rarely sufficient to effect a healing of the divided parts, the life of the poor woman is generally wretched in the extreme. True it is, that instances are known where women so affected have contrived to conceal their condition from their husbands, and have actually conceived and given birth to children; but such cases constitute only the exception to the general rule.

As long as the sphincter ani is not torn across, the treatment of a lacerated

perineum is quite simple, and is almost always successful. All that is requisite is, that the patient lay a-bed with the limbs retained close together, and keep the parts clean by frequent ablutions.

The treatment of the more serious accident,—when the vulva and rectum are lacerated together, so that they communicate with each other, and form, as it were, a common cloaca,—has not certainly been studied by surgeons with that attention which its importance requires.

Even in some of the most recent treatises on surgery, the subject is scarcely, if at all, alluded to. Judging from the reports of such cases as have been published, the attempts to effect a cure have very generally failed. According to M. *Roux*, French surgeons have been seldom willing to interfere, as there seemed to be such feeble hopes of success.

He is now of opinion that the failure has been mainly attributable to the faulty means employed in retaining the disjoined edges together.

It was in 1832, that he was fortunately induced to substitute the use of the *quilled* in place of the *interrupted* or the *twisted* suture—one of which methods had been hitherto uniformly practised.

Since that period he has operated in eleven cases of complete rupture of the perineum, with the good fortune of effecting a cure in most of them.

The history of his first case is especially interesting, and deserves to be mentioned. It occurred in a young lady, (the wife of a medical man,) who most urgently requested M. *Roux* to try some operation to relieve her from her miserable condition. The following was performed. The edges of the fissured parts being previously *avivés*, four needles were passed through from one side of the perineum to the other, and the *twisted* suture was then practised, as in the ordinary operation for hare-lip. Every thing seemed, for some time, to promise well; the threads were removed on the seventh day; but two days subsequently the line of union gave way, and the patient was as miserable as ever. She urged, however, a second attempt to be made; and M. *Roux*, having studiously considered all the particulars of the case, now resolved to substitute the *quilled* in place of the *twisted* suture, in the hope of being thus able more effectually to bring the entire depth or thickness of the fissured parts in strict contact, and to keep up a certain degree of pressure on these parts during the process of cicatrisation.

Having again made the surfaces, to be united, raw, he passed a largish dissecting needle, armed with a double ligature, from without inwards, and at about an inch or rather more from the edge of one flap, to the very deepest part of the wound close to the anus; then drawing it outwards, he now passed it from within outwards through the opposite flap. Two other sutures were then passed in nearly the same manner: the one at the centre of the fissured perineum, and the other close to the *fourchette*. The needles having been withdrawn, a portion of a caoutchouc bougie was now laid along the right side of the perineum, between the loops of the ligatures, and the other ends of the ligatures were drawn tightly, so as to cause the bougie to press with tolerable firmness upon the right side of the perineum. A second portion of the bougie was now laid along the left side of the perineum between the two threads of each double ligature, and secured in its place by tying the ligatures so close and firm upon the bougie as to cause it to press well upon the subjacent parts: "we need have no fear of drawing the two edges too firmly together," says M. *Roux*. As the lips of a wound are apt to be somewhat everted when a quilled suture is employed, it will be generally found necessary to pass two or three stitches of the interrupted suture, so as to bring and retain them in strict apposition. The following remarks on the superiority of the quilled over every other form of suture, in the accident now under consideration, are extracted from a memoir, which was recently submitted by M. *Roux* to the Royal Academy of Medicine.

Having detailed the particulars of a case wherein it had been successfully

used, he proceeds to remark: "we can now judge of the superior efficacy of this (the quilled) suture in the treatment of lacerated perineum. As it is with curved needles that ligatures are passed, it is obvious that a much greater depth or thickness of parts can be embraced than if straight needles were used. The ligatures, too, although they may have a tendency *se redresser*, in consequence of their two ends being drawn tightly together, can never become so unyielding and so straight, as straight needles—such as are used in practising the twisted suture—must necessarily be. The uniform pressure from the cylinders, placed along each side of the wound, cannot fail at the same time to retain the two edges much more accurately than can be done by means of any other form of suture. We may allude also to the circumstance of the hurtful constriction of the two edges being in a great measure obviated by the interposition of the cylinder between the ligatures and the skin: hence there is much less risk of the sutures working their way out, before cicatrisation has taken place. Moreover—and this is not unimportant—all escape of any fluid from the vagina or rectum between the approximated edges, is much more effectually prevented in this than in any other way; as the communication between the bottom of the wound and the surface is quite closed up."

With respect to the medical treatment of the patient, M. *Roux* very properly recommends that she should be kept for several days before the operation on a very light unirritating diet, and that the bowels should be acted upon gently but regularly, so as to remove, if possible, all their fæculent contents. It is of the greatest consequence that they should be quite quiet, and have no tendency to be relaxed on the day of the operation, nor yet for a week afterwards; as it must be obvious that the efforts of the rectum to empty itself must necessarily tend to strain, and perhaps to burst open again, the recently-united surfaces. In some patients it will be found necessary to exhibit opiates, for the purpose of inducing the requisite constipation. During the first six or seven days, the food and drink must be taken in as small quantities as possible. At this time, if hitherto there has been no action, a gentle aperient may be given, before the ligatures are withdrawn—which step should not be taken until the following day.

As affording another precaution to prevent any disturbance of the wound, the urine should be drawn off with the catheter at regular intervals: perhaps the best plan is to leave the instrument in the bladder. It is scarcely necessary to add, that the patient must remain entirely quiet: to prevent the movement of the limbs, they should be tied together.

We shall now briefly mention the result of the eleven operations which M. *Roux* has performed for the cure of lacerated perineum, by means of the *quilled* suture. In all, a copious suppurative discharge from the vagina followed on the second or third day, and an uneasiness, more or less considerable, was experienced in voiding the urine. That portion of the fissure nearest to the anus is almost always the latest of healing. At this point there usually remains for some time after the rest of the wound has cicatrised a small gap, such as follows the operation for fistula ani; and even when the greatest care has been taken to pass one of the ligatures through the *eperon* of the recto-vaginal septum, a length of time is required before the communication between the two passages is entirely obliterated;—the escape of the intestinal gas and fæculent contents retarding the complete coalescence of the edges of the opening. By proper attention, however, and by the occasional application of the nitrate of silver, the fistula gradually contracts, and will ultimately cicatrise. Of the eleven cases, a cure was effected in seven by a single operation. In one the operation was unsuccessful the first time, but succeeded perfectly the second time. Two of the patients died—one from the effects of phlebitis, or of purulent absorption; and the other, (in whom the laceration of the perineum was complicated with prolapsus of the rectum and of the vagina,) from chronic-enteritis, to which she

had been long subject. In the remaining case, every thing went on favorably till the fourteenth day, when, after a sudden action of the bowels, the adhesion of the united surfaces gave way: a second operation is, however, to be performed.

Before drawing our remarks to a close, we shall very briefly allude to those cases, where a fistulous communication between the rectum and vagina, unaccompanied, however, with any laceration of the perineum, has taken place. It is a much less serious accident than that of which we have been treating hitherto. Under judicious management, the efforts of nature alone will generally suffice to effect an obliteration, unless the fistulous opening be very considerable.

M. *Sancerotte* mentions a case, where the perineum and part also of the recto-vaginal septum were lacerated during a difficult parturition, the sphincter ani however remaining entire. Four months after the occurrence of the accident, the edges of the fissure were *avivés*, and brought together by means of six points of the interrupted suture. The bowels were not allowed to act for eleven days; but then, after an evacuation, three of the stitches gave way: the extent of the laceration, however, was reduced by one half. A second operation was therefore performed; the sphincter ani was first divided, and after paring the edges of the fissure anew, four stitches were introduced. After the lapse of three months the fistula was quite healed.

On this case M. *Sedillot* has, it appears to us, very justly remarked that the sutures seem to have been not only of no use, but rather to have retarded the process of cicatrization; and that if merely the edges of the fissure had been *avivés*, and the sphincter ani divided,* the cure would probably have been much more rapid. This opinion is confirmed by the result of a case reported by *Noel* in 1794. In this case the entire perineum, the sphincter ani, and a portion of the recto-vaginal septum had been lacerated. After the edges of the fissure had been made raw, the perineum was brought and retained together by means of two twisted sutures, one near the anus and the other close to the *fourchette*. The limbs of the patient were then tied together; and an open state of the bowels was encouraged by the administration of laxative medicines.

On the sixth day after the operation, the anterior needle being withdrawn, all the alvine contents were found to pass by the anus; the second needle was not removed till the 25th day, and by that time *tout etait cicatrisé*.

It may therefore be fairly questioned whether it is ever advisable to employ sutures in the treatment of a recto-vaginal fistula. If the perineum be lacerated at the same time, the attention of the surgeon should be mainly directed to get rid of this accident, and leave the contraction and coalescence of the fistula to Nature, after paring its edges, and perhaps occasionally touching them with some stimulant or caustic.—*Journal des Connaiss. Med Chirurgicales.*

M. JOBERT ON INTERNAL PILES AND FISSURES OF THE ANUS.

IT is now generally admitted by surgeons, that excision is the most effectual, and at the same time the least dangerous, method of removing internal piles. The only serious objection to its adoption is the risk of consecutive hæmorrhage. "In two-fifths of the patients on whom I have operated," says M. *Dupuytren*,

---

* Mr. *Copeland* has, we believe, recently pointed out the advantage that may be derived in the treatment of recto-vaginal fistulæ, from dividing the *sphincter ani*. It would seem that in this idea he has been anticipated by the French surgeons.

"and in whose cases I did not employ any hæmostatic means after the excision, an internal hæmorrhage supervened." The quantity of blood thus lost in some cases is very alarming, the rectum and even the greater part of the colon becoming filled. Several patients have died in consequence. The absence of valves in the veins of the portal system will account for the profusion of the discharge.

To prevent this alarming accident, *Dupuytren*, after having tried all other expedients, declared that the only one, to which the surgeon could safely trust, was the actual cautery applied to the bleeding surface. He assures us that by this means he always avoided any consecutive bleeding.

M. *Jobert*, however, states, that he has on several occasions known alarming hæmorrhages supervene after the use of the cautery. It is also to be remembered that this violent remedy always induces most distressing inflammation and tumefaction of the cellular and adipose tissue of the anus, and that the rectum and bladder not unfrequently sympathise most severely. To avoid these inconveniences, M. *Jobert* has of late years adopted the following practice in preference.

The patient having made the piles to project as far out as possible, the surgeon lays hold of them by means of a hook, so as to retain them there as long as is necessary, and divides them slowly and carefully, applying a ligature to each vessel, as it starts; (je les divise lentement, *et à mesure qu'un vaisseau fournit du sang, j'en opere la ligature au moyen d'un fil simple.*)

The gut should not be returned immediately; but if, after it has been well sponged, no bleeding points be seen, it may be replaced with a perfect assurance that no consecutive hæmorrhage of any importance will follow. The patient usually recovers without much suffering.

M. *Jobert* has related several cases in illustration of his practice.

A gentleman had for upwards of ten years suffered exceedingly from pain and suffering after defæcation, in consequence of numerous piles, internal as well as external. Some of these were ulcerated on their surface; and hence an almost constant purulent discharge, and occasionally also very copious hæmorrhages flowed from the bowel. To add to the patient's sufferings, the gut became frequently prolapsed after every alvine evacuation. M. *Jobert* advised him to submit to an excision of the hæmorrhoidal tumours. Several arteries and large veins were tied; no hæmorrhage followed; and, at the end of fifteen days, the patient was completely well.

The case also of a lady, who for several years had suffered martyrdom from the anus and extremity of the rectum being almost quite plugged up with a mass of hæmorrhoidal tumors, is detailed at considerable length. M. *Jobert* at first hesitated what line of practice to pursue, in consequence of the size of the varicose vessels, and of the extent of the disease. At first he proposed to adopt *Dupuytren's* method of using the actual cautery after excising the tumours; but finally he followed the plan recommended above—*c'est à dire la section graduée et la ligature des vaisseaux à mesure qu'ils etaient divisés.*

The cure was quite satisfactory.

M. *Jobert* assures us that he has now adopted this practice in a great many cases, and he is convinced that it is by far the most advisable for the removal of internal hæmorrhoids.

Fissures of the Anus.

It is only of late years that this most troublesome and distressing affection has been properly understood. It used to be confounded with syphilitic rhagades and ulcerations. It is to the late Baron *Boyer* that we owe the first right description of the disease, and of the most successful mode of treating it. Regarding the fissure as the result or consequence of a spasmodic contraction of the sphincter ani, he showed the necessity of dividing the margin of the anus in-

cluding the fibres of this muscle; and his practice has been almost universally followed.

The practice is right; but the theory is more than questionable. The spasmodic contraction of the sphincter seems to be rather the effect than the cause of the ulcerated fissure of its mucous covering and of its surface. It is the irritation, to which its superficial fibres are exposed, that induces the spasmodic contraction of the muscle. It is of importance to attend to this circumstance, viz. whether the ulceration is limited to the mucous lining of the gut or whether it has extended to the fibres of the sphincter ani, in the management of the disease. In the former case it is rarely necessary to have recourse to the scalpel; the ulcerated fissure will generally heal under the use of caustics, &c. But when once the fibres of the sphincter are involved, and the consequent spasmodic contraction of the muscle is induced, the application of any irritating substance, tends only to aggravate the suffering, and the only successful mode of treatment, it has been supposed, is fairly to divide the muscle across.

M. *Jobert* has found however that even under the latter circumstances, it is not always necessary to effect a complete division of the muscle—one of the occasional troublesome results of which is to cause an incontinence of the rectum.

He has succeeded in removing the disease by simply excising, either with a scalpel or with scissors, the membrane lining the ulcerated surface and a small portion of the subjacent soft parts: the fissure is thus brought to the state of a simple wound, and the pain occasioned by the contact of the two lips no longer continuing, the spasmodic contraction of the sphincter ceases.—*Gazette Medicale.*

In a recent number of the Journal "Experience," M. *Mondiere* has published several cases of fissure of the anus successfully treated by the introduction, night and morning, of bougies (*meches*) of lint well smeared with an ointment composed of lard, sugar of lead, and extract of belladonna; and, when the contraction of the anus is overcome, by the application of lunar caustic to the surface of the fissure. It is to be remembered that the introduction of any foreign substance into the rectum, when a fissure exists, is almost always attended with severe pain. We must not therefore be induced to discontinue the attempts to dilate the anal orifice, although the patient should complain for some time after each introduction.

M. *Mondiere* does not seem to have been aware of the distinction in cases of fissure of the anus pointed out by M. *Jobert*, and mentioned above.

M. DEZEIMERIS ON RUPTURES OF THE HEART.

The writer arranges the cases of this frightful accident in seven classes or groupes: 1. rupture of the heart from external injuries; 2. spontaneous rupture, without any appreciable pre-existing alteration of the tissue of the heart; 3. rupture of the parietes of some cavity of the heart which has been previously dilated; 4. rupture with a probable, but not distinctly ascertained, lesion of the tissue of the heart; 5. rupture from softening; 6. rupture from abcess of the heart; 7. rupture from ulceration or perforation of the heart.

1. *Rupture following external violence.*—This accident has been induced by gun-shot injuries of the thorax, by falls from horse-back, by the kick of a horse on the chest, by a wheel or any heavy object passing over the chest, &c. In most of the cases of this character on record, there has been no direct wound of the heart,—either from any foreign substance, such as a ball, or from the broken end of the sternum or of a rib being driven inwardly—and even the

pericardium has generally been found uninjured. The heart seems rather to have given way as a bag, filled with any fluid or gaseous substance, does, when it suddenly strikes against any firm unyielding body. However this may be, certain it is, that in the cases of rupture from external injury, the heart *is* usually found to have burst at the weakest point towards its basis, and almost always in one of the cavities on the right side.

Chaussier performed some experiments which very satisfactorily explain the cause of the accident. He found that, whenever the current through the aorta was suddenly arrested, a rupture of one of the left cavities was not unfrequently the consequence; and it seems indeed probable that if from any cause an obstruction to the exit of blood from the right ventricle takes place, and the right cavities of the heart become thereby excessively distended, the parietes either of this cavity, or of the right auricle, will give way.

II. *Spontaneous Rupture, without any appreciable Lesion of the Heart.*—Dr. *Olmi* of Florence, published in 1803, an interesting example of this lesion. A man, only 38 years of age, but of an enfeebled constitution, was, after indulging to excess in venery and eating, suddenly seized with severe pain along the course of the sternum. His anguish became extreme, and a cold sweat broke out over all his frame. The pulse was exceedingly small and irregular; but the respiration remained calm and little disturbed. He experienced no sense of numbness in either of his arms; but his left one was unusually sensitive to any pressure, from the shoulder down to the points of the fingers. Next day he died. On dissection, the heart was found to be very large, and, when the pericardium was slit open, a quantity of black grumous blood flowed out. On the posterior surface of the left ventricle, at about half an inch from the septum, was found a rupture of nearly an inch in extent—every other part of the heart seemed to be quite healthy.

M. *Rostan* has published the reports of four cases of rupture of the heart, in all of which the organ appeared to be perfectly normal, with the exception of its being more or less hypertrophied.

A most instructive case is related in M. Hufeland's Journal. A gentleman 68 years of age, was seized very suddenly with an excruciating pain in the epigastric region, which he took for spasms of the stomach. It gradually ceased, and disappeared of itself. Next day he experienced a similar attack; and on the morrow he was seized with a sudden shivering, coldness, and spasms of the extremities, and the most agonizing pain and sense of anguish in the epigastrium: these symptoms gradually abated. But on the following day there was another paroxysm, during which the entire left arm from the shoulder to the finger-points became quite benumbed:—the suffering of the patient during these paroxysms was quite dreadful. While they lasted, the pulse was small, irregular, and sometimes imperceptible. Death occurred on the afternoon of this day—the fourth after the first seizure.

Dissection.—Between two or three pounds of blood, partly coagulated, were found within the cavity of the pericardium. There was a lacerated opening in the left ventricle, of about an inch and a half on its outer, but not more than half an inch in extent on its inner, surface. The edges were irregular and fringed, and they perfectly adjusted to each other. *Fischer*, who examined the heart and blood-vessels with most minute attention, could not detect any trace of organic alteration in any part of their structure.

M. *Portal*, has related several cases, somewhat similar to the preceding ones, of rupture of one of the ventricles, unaccompanied with any visible alteration of structure, in his Memoir *Sur des mortes subites*, &c., published in the Mem. de l'Acad. Royale, for 1784.

III. We now proceed to notice some cases of the same accident, where one

or more of the cavities of the heart proved to be more or less *dilated* at the same time.

It would seem that such a complication is by no means of so frequent occurrence as might, from mere reasoning, have been anticipated.

Three cases only are mentioned by M. *Dezeimeris*—in the *first*, the rupture had taken place in the left ventricle, which was found to be dilated to nearly three times its normal volume; in the *second*, the rupture was in the right ventricle, which was much dilated, while the left one was exceedingly hypertrophied; and in the *third*, the right auricle, which was much larger than usual, was found to have given way.

Rupture of an auricle is of exceedingly rare occurrence: but M. *Lobstein* is mistaken in asserting (Anat. Patholog.) that one case only of such an accident is on record.

IV. *Ruptures of the Heart*, accompanied with a softening of the tissue of one or more of its cavities. The character of this organic degeneration may be either fatty, gelatiniform, or apoplectiform.

a. Rupture, associated with a *fatty* alteration of the hearts' tissue.

We do not allude to the mere accumulation of fat around the basis of the ventricles—a condition which we frequently meet with in very corpulent persons—but to a decided softening of the heart's tissue in consequence of its muscular substance being, as it were, infiltrated with, or transformed into, an adipose matter.

Rupture, in connexion with such a morbid state, is of not unfrequent occurrence.

A barrister, 57 years of age, very corpulent, and of an irritable violent disposition, had for some years suffered from a train of symptoms, which evidently had their seat in the heart: he died suddenly.

On dissection, a large coagulum of blood was found adhering to the anterior surface of the heart, and attached firmly to the septum of the ventricles by two prolongations, one of which penetrated into an aperture situated at about half an inch from the apex of the heart, and the other into a longitudinal fissure or laceration situated above, but in the same line with, the other aperture. The heart was altogether very large, of an unusually pale colour, and so soft that the finger could readily be pushed through its substance.

The ruptures were in the left ventricles, and the tissue of the heart around them was considerably attenuated and dilated. The right ventricle, although it had not given way, was *presque entièrement graisseux*.

Dr. *Adams* (Dublin Hospital Reports, 1827), has reported two cases, very similar to the preceding one. In both, the rupture had taken place in the left ventricle, the muscular substance of which was found very soft and partially converted into a fatty substance.

b. Rupture, associated with a *gelatiniform* alteration of the heart's tissue.

According to the observation of M. *Bland* this morbid condition is peculiar to old age, and seems to be the result of an atrophy or imperfect nutrition in the part effected. He has met with four cases of it, in all of which the muscular fibres of the wall of the ventricles were, as it were, infiltrated with a gelatinous serosity, and had become so soft and friable, that they readily gave way under the mere pressure of the fingers. M. *Bland* is of opinion that this change is the result, as already stated, of defective nutrition, and that we may very generally detect its incipient stages in the hearts of very aged persons.

A man, 86 years of age, having been previously in very good health, was suddenly seized with pain, sense of burning heat, and of oppressive weight

in the precordial region: these symptoms were accompanied with extreme anxiety and exhaustion.

He became deadly pale and expired almost immediately.

Dissection.—The pericardium was found distended with blood: the left ventricle had become ruptured on its anterior surface. The irregular slit or opening thus produced was nearly an inch in extent outwardly, but very much smaller on the inner surface of the ventricle. The texture of the whole heart, and more especially of the left ventricle, was soft, flabby, easily crushed under the fingers, and converted into a gelatiniform substance, in which the form and direction of muscular fibres could scarcely be recognised: the cavity, however, was not more dilated, nor its walls thinner than usual; *tout le reste de l'organisation était sain.*

The following case occurred at a much less advanced period of life.

A man, 58 years of age, much addicted to venery, was rather suddenly seized, on the 20th of November, with a sense of painful constriction in the precordial region. This quickly passed away; but it returned several times at irregular intervals.

During the night of the 28th, the attacks of pain were more frequent and severe: they ceased, however, towards morning, and the man arose as usual; but he felt an inward indescribable distress, which strongly impressed him with an assurance of approaching dissolution. At four o'clock in the afternoon he suddenly expired.

The pericardium was found to be filled with a quantity of dark, partly coagulated, blood; near the apex of the right ventricle there was a lacerated opening, and, on the anterior surface of the left ventricle, there was a similar *dechirement.*

Besides these points of rupture, there were other three—two on the left and one on the right ventricle—which were incomplete, *i. e.* not penetrating through the walls of the ventricle into its cavity. In all, the laceration had taken place longitudinally, or in the line of the muscular fibres. The walls of the ventricles exhibited their usual thickness, but they were remarkably soft, and easily lacerable: the fibres being, as it were, infiltrated with a sero-gelatinous fluid.

In an interesting case, reported by Hodgson in his work on the Diseases of the Arteries, and which occurred in an old woman, who had for several years suffered from dyspnœa, paralysis, &c. the left ventricle was found ruptured on its anterior surface. Its tissue was excessively flaccid, and it was also much attenuated around the ruptured point. Both coronary arteries were encrusted with a calcareous deposit, but the left one more remarkably so; the cavity of this vessel having become nearly obliterated in consequence.

Query. Was the softening of the muscular tissue an effect of the atrophy induced by this state of the coronary arteries?

c. Rupture, associated with an *apoplectiform* softening of the heart's tissue.

This is the form of softening, which is described by the old authors as gangrene, and by some recent authors as an inflammatory *ramollissement.* M. *Cruveilhier* first denominated it apoplexy of the heart.

Case. A distinguished military man was suddenly seized with a violent oppressive pain in the chest, which extended towards the left arm: it lasted only for a minute or two and then ceased. There were several such attacks on this and on the following day. On the third, the oppression, anguish, and distress of breathing were much aggravated: several ounces of blood were therefore taken from the arm. While the blood was flowing, the patient became unusually pallid, breathed quickly, and expired.

On *dissection,* the pericardium was seen to be much distended: on opening

this bag, nearly three pounds of blood were found. The left ventricle, towards its basis, exhibited a lacerated opening of nearly an inch in extent: the muscular substance at and around the seat of rupture was attenuated, and of a deep brown colour, *comme si elle eut été frappée de gangrene.*

No other morbid alteration was found in the heart or lungs.

(The event in this case suggests the propriety of the greatest caution in practising bleeding, whenever there is serious disease of the heart.)

Corvisart has reported a case of rupture of the heart arising from the dark-brown-coloured, or apoplectic, softening of its substance; another very remarkable one has been related by *Cruveilhier*, in his *Anat. Pathol. 4me liv.*; and several others are described by M. *Rochoux* in his thesis, *des ruptures du cœur et principalement de celles produites par le ramollissement de son tissu.*

Passing over those ruptures of the heart, which are the result of the bursting of an aneurismal sac or cyst formed in one of the ventricles or auricles, we shall now briefly detail two or three cases where the rupture was the consequence of ulceration in the parietes of one of these cavities.

Case. An aged woman, while recovering from an attack of continued fever, was suddenly seized with an intolerable pain in the chest; this seizure was quickly followed by convulsions, cold sweat, loss of speech, and somnolence. The action of the heart was found, on auscultation, to be confused, rapid, and irregular. She died during the course of the night.

On *dissection*, upwards of thirty ounces of bloody fluid were found in the pericardium. On the anterior surface of the left ventricle, at about an inch and a half from the apex of the heart, was a gaping ruptured orifice of upwards of an inch in extent. The internal surface of the ventricle, around the opening, exhibited an ulceration, which had destroyed the *columnæ carneæ* and muscular tissue to a considerable depth.

M. *Cloquet* has reported a similar case, which occurred in a very old man, in the Bulletin de la Fac. de Med.

Nearly two pounds of blood were found in the pericardium. The left auricle, close to one of the pulmonary veins, had burst. The internal surface of the auricle at this point was occupied with an ulceration.

We shall close our remarks by describing briefly a remarkable case of rupture of the heart, proceeding from the formation of an abscess in the substance of the left ventricle.

It is related by Dr. *Mott* in the Transactions of the Physico-Medical Society of New York, 1817.

A robust young woman was unexpectedly found dead in her bed. On the preceding evening she appeared to be quite well.

On dissection, the pericardium was found to contain ten or twelve ounces of coagulated blood. The blood was found to have escaped by an opening near the upper part of the left ventricle. The heart was much loaded with fat; around the seat of rupture, the parietes of the ventricle were considerably attenuated, and communicated to the finger a sense of fluctuation. On squeezing them, a cheesy-looking matter was forced out. This was found to have been contained in an abscess, of the size of a pigeon's egg, which was imbedded within the muscular tissue of the left ventricle, and which communicated with the ruptured opening.—*L'Experience.*

On the Auscultation of the Heart in Health and in Disease.

We have upon more than one occasion drawn the attention of our readers to the researches of M. *Beau*, of the Hôpital de la Charité, on cardiac auscultation.

On several important points he differs from the views of his predecessors; but his opinions are not hasty, and, derived as they are from personal observation, cannot fail to attract notice. We must necessarily abridge the valuable paper, which he has recently published in the January number of the *Archives*. He commences by explaining his view of the movements and the accompanying sounds of the heart in health. According to him the *first* or lower-seated sound of the heart is ventricular, and is produced by the shock or impulse of the wave of blood propelled from the auricles against the parietes of the ventricles: it is therefore the effect and also the index of the sudden dilatation of these cavities —and not of their contraction, as is usually alleged. The *second* or upper-seated sound occurs at the moment of the dilatation of the auricles, and is the result of the shock of the blood, rushing from the venous trunks, against the parietes of these cavities: the semilunar valves being at the same time thrown back, so as to prevent the regurgitation of the blood into the ventricles.

M. *Beau* then gives an account of the rhythm of the movements of the heart; but as a good deal of his writing on this subject seems to be entirely conjectural, (and indeed this has been the case with all authors, including *Laennec* himself,) we pass it over, to arrive at what is of more importance, the physiology of the heart's impulse against the thoracic parietes.

*The impulse of the heart is the effect of the diastole, not of the systole, of the ventricle.**—"Starting," says M. *Beau*, "from this idea—that the shock of the point of the heart against the parietes of the chest occurs at the moment of the ventricular diastole, and that this diastole is purely the passive result of the auricular systole—I asked myself if, in those cases in which the impulse is excessive so as quite to shake the walls of the thorax, this symptom was really the effect of hypertrophy of the ventricle, as had been generally supposed, or if it was not rather the result of hypertrophy of the auricles—a state which is very often co-existent with a similar state of the ventricles. This latter induction I found to be confirmed by facts. In sixteen cases, reported in M. Bouillaud's work, of hypertrophy of the auricles and of the ventricles, the impulse of the heart was uniformly very strong; whereas, in three cases of hypertrophy of the latter cavities alone, the cardiac impulse was not at all increased in strength. Indeed, the very reverse ought, according to my view of the subject, to hold good; and for this reason, that, in proportion as the ventricles become hypertrophied and consequently heavier than in a state of health, so much the greater difficulty will the auricle have in projecting or tilting the ventricles forwards against the parietes of the thorax. The following extract from some observations by Dr. *Corrigan* is illustrative of this remark: 'In numerous cases of hypertrophy,' says he, 'which have occurred to me, the heart was much increased in volume, in consequence of the enlargement of the left ventricle, the cavity and parietes of which had sometimes acquired the dimensions of a bullock's heart. The other parts of the heart, although notably increased in size, were not proportionately enlarged. Notwithstanding this considerable hypertrophe, the impulse of the heart is always less strong than in the healthy state. In some patients the pulsation could scarcely be felt.'

It would seem therefore that Dr. *Corrigan* has generally found that hypertrophe of the ventricles, alone or unattended with hypertrophe of the auricles at the same time, is accompanied with a diminution in the force of the heart's impulse; at least, this seems to be the case in many instances."

The next topic of cardiac symptomatology, examined by M. *Beau*, appears from the following query: *Is the narrowing of the orifices of the heart always attended with an abnormal bruit?*

---

* This is simply wrong. Experiment flatly contradicts it.—*Eds.*

Some pathologists have answered this question in the affirmative, others in the negative. M. *Bouillaud* says, *sur vingt cas de retrecissements, il n'y en a pas* 19 *où manque le bruit dont il s'agit;* whereas M. *Piorry*, on the other hand, maintains a very different conclusion, and adduces the reports of 39 cases, in 14 only of which had any abnormal bruit been perceptible. (*Traité de diagnostic.*)

As a general position, there cannot be a reasonable doubt that contractions of the orifices of the heart are *not necessarily* accompanied with the existence of any abnormal bruits. The reason of this is obvious; if the volume of the blood sent through the orifice be at the same time proportionately diminished, there will be no impediment or obstruction to its transmission, and consequently there will be no unnatural sound perceptible*—almost all the abnormal sounds of the heart being attributable to a disproportion between some of the orifices and the volume of the current transmitted through them.

Even when the quantity of the transmitted blood is not diminished, although one or more of the cardiac orifices be contracted, it does not necessarily follow that any *abnormal* bruit must be present; for, if the cavity behind the contracted orifices should empty itself by two efforts or strokes in place of one, as in health, it is evident that there will be no disproportion between the volume of the fluid and the opening through which it is propelled. In such a case, however, the *normal* bruits, and the arterial pulse also, will be found to be unusually frequent, feeble and irregular.†

These considerations will explain the occasional effect of blood-letting and other depletory means in either removing altogether for a time, or at least materially diminishing, the intensity of any abnormal bruits.

In other cases we observe that, where the irregularity of the action of the heart becomes less, a blowing or rasping sound becomes audible, although no such sound had been heard before. Such an occurrence may be explained thus. If the heart attempts to expel at one stroke through any of its orifices a quantity of blood which previously required two strokes, then at once the disproportion between the volume of fluid and the dimensions of the aperture takes place; and the result of this very disproportion is the abnormal bruit in question.‡

These considerations point out the fallacy of attaching too much consequence to any single symptom of a disease, and teach us moreover that auscultation, like every other means of diagnosis, can not be trusted to by itself, and is valuable only when taken in connexion with the whole history of the case.

We have already explained how there is usually an absence of any abnormal bruits, whenever the movements of the heart are rapid and irregular, or tumultuous, although a very serious alteration of some of the orifices may be present at the time. Now such a state of things is much more frequently observed in old than in middle-aged or young patients; and hence we can account, in some

---

* M. *Beau* had in a previous paper (vide Medico-Chirurg. Rev. Oct. 1839) endeavoured to shew that almost all the bruits of the heart and large blood-vessels are referable to a *defaut de proportion entre le vaisseau et l'ondée du sang.*

† There was recently in a clinique of M. *Fouquier* a case, which very strikingly illustrates this remark. The left auriculo-ventricular orifice was found on dissection to be so much contracted, that it would scarcely admit a common writing quill; yet there had been no *abnormal* bruit perceptible during life, although the rhythm of the *normal* bruits and of the pulse was extremely irregular and confused, and the patient was afflicted with the palpitations.

‡ In M. *Filhos'* Thesis (Paris 1833) we observe a case in point. It is remarked of a girl, in whom the tricuspid valves were found after death to be indurated, that "during the existence of the tumultuous movements of the heart, the blowing sound was not at all perceptible."

degree at least, for the statement of M. *Piorry*, alluded to above, that in 25 out of 39 cases of contracted auriculo-ventricular orifices—among the aged inmates of the Salpetriere—no abnormal bruit was perceptible.

The varieties, or different characters, of the abnormal bruits depend upon several circumstances; such as the amount of disproportion between the volume of the blood and the size of the passage through which it has to go, the force of the impulsion communicated to each wave of blood, the nature of the obstacle to its transmission, &c. &c. It is quite impossible to give a definite and exact explanation of all the phenomena which we meet with in practice. All that we can positively assert with confidence is, that "le degré le plus leger des bruits est le bruit de *souffle*, le degré le plus fort est celui de *rape*." This last, the *rasping* or sawing sound, very generally attends all permanent contractions of any of the cardiac orifices; and it is very generally associated with that peculiar tremulous or purring sensation, experienced by the hand when applied to the region of the heart, and known by the term *fremissement cataire*.

Let us briefly consider whether the examination of the abnormal bruits assists us in diagnosticating the seat of the cardiac disease. M. *Beau* is of opinion that the occurrence of an abnormal bruit accompanying the *first* sound of the heart—indicative of the dilatation of the ventricles—possesses little value as a diagnostic sign, seeing that it is met with in all the varieties of *polyæmia* (plethora, chlorosis, &c.) in contractions of the ventriculo-arterial orifices, and in contractions and insufficiency of the auriculo-ventricular orifices; but that any abnormal bruit accompanying the *second* sound of the heart—indicative of the dilatation of the auricles—is symptomatic only of insufficiency of one of the ventriculo-arterial orifices.

M. *Beau* is aware that, in making these statements, his opinion is at variance with that of most authors, who have of late years written on the subject; but it is strictly in accordance, he says, with the results of many of the cases recorded by these authors themselves. No where, for example, has he met with a conclusive case of simple or uncomplicated auriculo-ventricular contraction being accompanied with an abnormal bruit during the *second* sound of the heart's action, (and yet cases of this disease are certainly not of unfrequent occurrence), whereas there are numerous instances of such contractions being accompanied with abnormal bruits during the *first* sound.

In truth, medical men have, on this as upon too many other subjects, followed unreservedly the mere *dicta* of certain writers, without examining the point at all for themselves. One reason moreover of the error now alluded to has arisen from the circumstance of the *normal* and *abnormal* sounds, whether of the first or of the second period of the rhythm, of the heart having been generally supposed to be caused by the same wave of blood. Now this is a mistake in reference to the sounds during the second period, although it is true of those heard during the first. The second normal sound of the heart's action is caused by the shock or impulse of the blood upon the parietes of the auricles, whereas the abnormal sound,—whatever may be its character—heard at the same period, proceeds from the friction of the blood against the sides of the ventriculo-arterial orifices, in consequence of a diseased condition of the semilunar valves, or in short of any lesion which may cause a disproportion between the volume of blood propelled from the ventricles and the diameter of the ventriculo-arterial orifices.

The case is different with the sounds, abnormal and normal, heard during the first period of the heart's action. They are situated in, or proceed from, the ventricles—the normal sound arising from the shock of the blood against the walls of the ventricles at the time of their dilatation, and the latter from some impediment to, or irregularity in, the admission of the blood into these cavities.

M. *Beau* sums up the result of his observations in the following propositions:—

1. Hypertrophy of the ventricles does not occasion, *par elle-même*, an increase in the shock or impulse of the heart felt in the precordial region. It is only when there is hypertrophy of the auricles at the same time, that the shock against the parietes of the chest becomes unusually strong.

2. All the abnormal sounds of the heart are produced by the increased force in the friction of the blood against some of the cardiac cavities : this occurs whenever there is any disproportion between the volume of the sanguineous wave and the size of the cavities.

3. The contraction of any of the cardiac orifices is not necessarily accompanied with an abnormal bruit ;—because, from various causes, the volume of the sanguineous blood, propelled through the contracted orifice, may be proportionately diminished ; and thus the force of the friction of the globules against its parietes will not be greater than in health.

4. When contraction of the cardiac orifices is not accompanied with any *abnormal* bruits—as often happens in old age—there is usually a great irregularity in the *normal* bruits of the heart, and in the beats of the arterial pulse.

5. The abnormal bruits, heard during the *first* period or sound of the heart's action, are caused by numerous morbid states ; such as by all the forms of *polycæmia* or phlethora, as well as by whatever may induce a diminution in the dimensions of the auriculo-ventricular and of the ventriculo-arterial orifices.

6. The abnormal bruits of the *second* period result solely from, and therefore are indicative of, an insufficiency of the ventriculo-arterial orifices.

7. The seat of the *maximum* of intensity of the abnormal bruits, heard during the *first* period, is usually at that point of the precordial region which is opposite to the inferior half or apex of the heart ; whereas the seat of the abnormal bruits of the *second* period is higher up, and opposite to the base of the heart.

8. It is not possible to distinguish, by the seat of the abnormal bruits, on which side, right or left, of the heart the orifices are contracted.

9. The abnormal bruits differ from the normal in their seat, their character and mode of production ; they have a separate existence, and therefore may be present together ; but they are never converted into each other.—*Archives Generales de Medecine.*

M. RICORD ON THE USE OF THE HYDRIODATE OF POTASH IN SYPHILIS.

In the more confirmed, or, as M. Ricord has denominated them in his recent work, the *tertiary* forms of constitutional syphilis, no remedy appears to be so uniformly and so potently useful as the hydriodate of potash.

It certainly requires a good deal of practical tact to discriminate those cases to which it is more especially adapted. But, as a general position, it may be confidenly asserted that, whenever a patient's system is deeply tainted,—as for example, when the bones have become affected, or when it has become broken down or cachetic—this preparation of iodine is by far the safest, and also the most effectual, remedy that we can have recourse to.

The various eruptions, and, we may add, almost every form of cutaneous and mucous disease which are among the more early phenomena of the constitutional infection, will be found to require, or at least to be much benefitted by, the employment of mercury. Even in the treatment of these less severe affections, it is very useful to administer the hydriodate at the same time ; as thereby the quantity of mercury necessary for the cure will be greatly diminished. We are not, indeed, of the number of those who attempt to refer all the worst cases of secondary syphilis to the mal-administration of mercury ; as we have repeatedly

seen them to occur in patients who had not taken a grain of it. But it cannot nevertheless, be disputed that the indiscriminate use of this mineral in all the diseases, which are in any way connected with venereal infection, has been productive of the most pernicious results.

In almost every case of syphilitic affections of the periosteum and bone, M. *Ricord* has of late years renounced the use of mercury, and trusted to the hydriodate; associating it, according to circumstances, with sudorifics, tonics, bitters, &c. Most surgeons will admit that, when a bone has once become carious, the internal administration of mercury is hurtful. Now it is especially in such circumstances that the hydriodate may be given, not only with perfect safety, but with good hopes of decided advantage. Steel and other tonics may be usefully given at the same time; and the local treatment also must be strictly and judiciously attended to.

We could adduce an immense number of cases, not only of ulcerated tubercles, but also of venereal caries of the bones, to illustrate the truth of these remarks: but this would merely occupy a space which we cannot afford at present. The following extracts from M. *Rattier's* report of M. *Ricord's* practice embody the most useful hints.

"In our researches on the administration of the ioduret of potassium, we have been able to follow out the treatment of all the various forms of *tertiary* syphilis.

Often the ioduret alone has been found sufficient for the cure; but, whenever any complication has happened to be present, it has received an appropriate medication.

By having recourse at one time to tonics and stimulants, at another time to antiphlogistics, M. *Ricord* combines the various resources of therapeutics, according to the circumstances of each case; and in some patients who, in consequence of successive infections, have exhibited the disease in all its stages —primary, secondary, and tertiary—a local treatment has been directed to the chancres, the use of mercury* has caused the secondary symptoms to disappear, and the hydriodate of potash has been equally successful against the tertiary symptoms.

Such is the basis of M. *Ricord's* treatment. If those principles, now explained, be not attended to, the physician will be apt to commit many serious errors; of which we meet with numerous examples in the assertions of those writers who have attempted to disparage the utility of the ioduret of potassium, on the ground that they have observed certain secondary symptoms resist its administration. Had a few mercurial pills been exhibited at the same time, these symptoms would speedily have vanished."

"In conclusion, the proto-ioduret of potassium amply deserves, in the treatment of *tertiary* syphilitic symptoms, all the praise which mercury is entitled to in the treatment of the *secondary* symptoms;—with this difference, that, very seldom or never, has it given rise to those numerous and distressing accidents which are too well known to have been frequently induced by the injudicious administration of its rival."—*La Lancette Française.*

TREATMENT OF SCROFULOUS OPHTHALMIA.

Constitutional remedies must never be omitted in the management of this most troublesome form of ophthalmia. Occasional mild purgatives—of which the

---

* M. *Ricord* has of late years trusted chiefly to the proto-ioduret of mercury.

best are, perhaps, rhubarb and the sulphate of potash—should be given every, or every second, day.

The Plummer's pill is highly recommended by M. *Sichel* in the treatment of all scrofulous diseases of children. Iodine, also, is a most valuable medicine.

One of the best formulæ for its exhibition is the following:—

℞ Potass. hydriodatis, ʒj.
Pulv. iodinii, gr. iij.
Aquæ distillat. ʒx.

Misce.

A table-spoonful of this mixture is to be taken twice a day. Some vegetable tonic should be given at the same time.

Sound malt liquor will often be found of the greatest service in such cases.—*Journal des Connaiss. Medicales.*

Diagnosis between Ascites, and Encysted Dropsy of the Abdomen.

M. *Rostan*, in a recent clinical lecture at the *Hôpital de l'Ecole*, briefly adverts to this practical point in the following terms:—

"You are aware that the diagnostic sign between the two forms of abdominal dropsy, the simple and the encysted, consists in the difference in the situation of the intestinal gases, in the two cases.

In the former, the clear tympanitic sound is to be heard in the upper region of the abdomen, whereas it is dull in the hypogastric and umbilical regions. In encysted dropsy, on the other hand, the sound is clear below and dull above. This is a law without almost any exception."—*La Lancette Française.*

M. Lombard on the Tonic Treatment of Typhus Fever.

The following extract from a very elaborate paper, entitled Clinical Researches on various points in the History of Bilious and Typhoid Fevers, by Dr. *Lombard*, physician of the Hospital at Geneva, will be read with pleasure by those who take an interest in comparing the opinions of our continental brethren with those of the experienced physician at home. It is worthy of notice that Dr. *Lombard* studied his profession for several years in England and Scotland, and acknowledges his obligations to the instructions which he had derived in London and in Edinburgh.

"In the greater number of the cases treated during 1837, I employed tonic medicines freely; the results were by no means unfavourable, as I lost only three out of twenty-one patients. The tonics were administered sometimes in the very commencement of the disease, or rather from the admission of the patient into the hospital, whenever the case appeared to be very serious; but in the greater number of instances, recourse was had at first to the use of baths and of purgatives. If the case however became aggravated in spite of the use of these means, then no time was lost, and the tonic regimen was at once adopted. The tonic, which I usually employed, was a camphorated mixture sweetened with syrup of cinchona: to this the acetate of ammonia, or the decoction of the senega root, was sometimes added, especially whenever any thoracic complication was present. I have also made frequent use of the sulphate of quinine in combination with benzoin—the former as a tonic, the latter as an expectorant. Along with these medicines, a portion of Malaga or of Bordeaux wine, or even brandy or other spirit, may be administered in certain cases with very decided advantage.

Often under the judicious employment of these remedies, have I found the pulse become calmer and less rapid, the skin of the body lose its harsh and dry feeling, the tongue become moist and clean, and the dark sordid encrustments around the teeth gradually disappear.

In patients labouring under that form of typhus fever, which is benefitted by the administration of tonics, the tongue is usually observed to be dry, and often cleft or chapped, dark-coloured on its surface, and bleeding. The use of stimulants has in my practice often very speedily dissipated this and other symptoms, —the state of the tongue now described being, in the course of a few days, followed by a more healthy condition of its surface. It is therefore quite a mistake to suppose that the tonic regimen, in such cases at least, has a tendency to increase the febrile irritation, and cause the tongue to become more parched.

As to the low muttering delirium, which very generally accompanies the worst forms of typhoid fever, this symptom too is equally mitigated under the judicious administration of tonics and stimulants.

The diarrhœa also, which is a very common symptom in aggravated typhus, usually abates at the same time.

Let it not be supposed that we recommend the adoption of the tonic treatment in all cases of this fever indiscriminately. The milder forms are best relieved by the use of baths and purgative medicines, and by quietude in a pure atmosphere. It is in the more severe and aggravated varieties of the disease, when there is extreme prostration and stupor, and when the patient seems to have around him a fœtid and gangrenous atmosphere, that we derive the greatest advantage from the employment of stimulants and tonics, as recommended above.

There is one remark which I have had frequent occasion to make, and which, being of practical value, should be well attended to by every physician—viz. that, during certain seasons and certain epidemics, the tonic mode of treatment will be much more successful than during others. In reference to my own experience, I may state that, four or five years ago, if I had given my opinion as to the value of tonics in Typhus fever, that opinion must certainly have been unfavourable; whereas within the last three years I have witnessed their efficacy in so many cases, that no doubt remains now upon my mind of their great utility. Still it is to be remembered that the employment of them may not be well suited to subsequent epidemics. It is, in short, only by studying the peculiar characters of each epidemic that the physician can reasonably hope to discover the appropriate mode of treatment; for what is useful and proper at one time is positively injurious at another. Hence the imprudence of insisting upon any exclusive and uniform practice, to be followed out in all cases; as if the disease was invariably and necessarily the same. We cannot indeed explain on what the difference of seasons, in respect of their influence on the character of fevers, depends; the fact however is too well known to all experienced physicians to admit of any doubt.

Whatever mode of treatment be pursued in typhus fever, the most exact attention to extreme cleanliness and to a free ventilation of pure air is of the highest consequence.

In the hospital at Geneva, the typhus patients are provided with two beds each, so that they can change from one to the other, morning and evening. Frequent ablutions and sponging of the surface are of the highest utility. In all severe cases the head should be shaved, as the application of cold spirituous washes to the scalp is most soothing and refreshing."—*Gazette Medicale de Paris.*

M. LOUIS AS A PRACTICAL MAN.

In the report of a case of pericarditis treated at the Hôtel Dieu by M. *Louis*,

the reader is informed that, in the treatment of this disease, he trusts almost exclusively to bleeding and the use of diuretic medicines. "As to blisters, M. *Louis* has entirely renounced them in all inflammations, and therefore he never employs them in cases of pericarditis."

This statement will not surprise those of our readers who are aware that, among other *discoveries* of this distinguished physician, he recently announced that even bleeding itself seemed to have little effect in diminishing the fatality from active phlegmasiæ. It would seem however that he has not abandoned the practice, although we were assured that this conclusion was drawn from most accurate arithmetical and statistical data! How are we to place any confidence in the practical directions of such a writer, however high his attainments as a morbid anatomist may be! and yet some of our most popular authors of the present day attempt to laud him as another *Sydenham* or *Morgagni*.

That the employment of blisters, as of any other remedy, may be—and is, especially by many of our continental brethren,—abused, will be admitted by every one: but that they are never productive of any good in pleurisy, pericarditis, &c., and are therefore to be *chassés* from practice altogether, is a position to which no British practitioner is at all likely to give his assent.—*Rev.*

UTILITY OF BELLADONNA IN SOME CASES OF EPILEPSY, &C.

Case 1.—A gentleman, 31 years of age, had been subject to epileptic attacks since he was sixteen years old. Their recurrence was sometimes weekly, sometimes more or less frequent; but a month never passed, without his experiencing at least two attacks. The fit seemed to proceed, so to speak, from the left wrist, and suddenly to mount up to the head: the left arm was feeble, emaciated, and the seat of flying pains.

The patient confessed that, from his fifteenth to his twenty-fifth year, he had addicted himself to masturbation. It is scarcely necessary to say that a variety of curative means had been tried; but none, it seems, was of permanent or very decided benefit.

He was ordered—on the 8th of September—to take a grain of the extract of belladonna in the form of a pill twice a day, to use a mustard pediluvium daily, to live lightly, and to take gentle exercise. By the 2d of October no return of the fits had occurred: the same treatment to be continued.

The next report is on the date of the 10th of Nov. at which time no attack had been experienced. The use of the belladonna pills, and of friction of the left arm with a liniment containing a small portion of the extract, was continued for several months; and it seems that, under this treatment, the patient was entirely freed from his protracted malady.

Case 2.—A gentleman, 39 years of age, had been subject to epileptic attacks for twenty years when he first consulted Dr. *Seguy:* the first attack had been caused by a sudden fright. At first the fits returned about once a fortnight; but gradually their recurrence became more and more frequent, until at length the patient had one or more attacks every day. Under the use of certain medicines, the attacks had frequently been less frequent; but it seems that whenever this was the case, they always became more severe. The patient was ordered to take a belladonna pill—one grain of the extract in each—twice a day. On the second day afterwards, the pupils were observed to be remarkably dilated and the sight was considerably affected. The frequency of the fits began to be very speedily less and less; so that, by the end of a fortnight, in place of several attacks every day, two days passed over without one. The treatment was persevered in for several months, and with the happy effect of completely removing

the disease. The gentleman, who had been a commercial traveller, was enabled to resume his journeys and attend regularly to business.

Case 3. *Partial Chorea.*—A youth, ten years of age, was rather suddenly seized with convulsive movements of the left side of the face, left arm and leg, in consequence apparently of the premature retrocession of a cutaneous eruption from exposure to a cold atmosphere. The employment of bleeding and of certain antiphlogistic remedies however speedily removed the attack.

After a lapse of two years, a second seizure, very similar to the first one, took place after a fright. The disease was again dissipated by the use of the same means as on the former occasion; but from this date there was a decided tendency to the return of the convulsions whenever he was excited or disturbed. This tendency gradually increased so much that at length the unfortunate patient ceased to enjoy those alternations of perfect health, which he formerly used to have; and indeed for the last five years—he is now 22 years of age—he has been in a very miserable state, being scarcely ever free from his malady.

When Dr. *Seguy* first saw him the following was very nearly his condition. All the muscles of the left side of the face were in a state of tension which, after lasting a few seconds, was succeeded by a convulsive irregular movement of the parts. At the same time the left fore-arm and leg were somewhat similarly affected—the muscles being one moment stretched, another relaxed, and then thrown into convulsions. After an interval of four or five minutes' repose, the same phenomena were repeated. The deltoid muscle of the left side was hard, painful, and seemed to have lost its contractility, for the patient could scarcely raise the arm. In walking, the left leg was always dragged after the other one, as if the patient had very little control over its movements.

His general health was regularly good. He was recommended to take a belladonna pill twice a day, and to rub the affected fore-arm and leg with a pommade containing some of the extract.

After the lapse of a month's use of these means, the patient was in every respect much improved. The attacks were now very trifling, and did not return above four or six times a day. Before another month had expired, *il n'y avait plus de crises*, and the patient could use his left arm and leg nearly as well as the right one.—*Revue Medicale.*

CASES OF POISONING FROM THE EXTRACT OF ACONITE.

Dr. *Pereyra* and his colleagues of the hospital at Bordeaux have, for years past, been much in the habit of employing the alcoholic extract of the aconitum napellus, in the dose of from 3 to 10 grains during the 24 hours, in chronic rheumatism, neuralgia, certain forms of paralysis, &c. No accident had been known to result in their practice from its use, until about three months ago, when some fresh extract had been obtained from the *pharmacien*: of this, five grains had been given to three of the patients. One of these died at the expiry of three hours after taking it; and the other two became alarmingly ill. It would appear that, in about a quarter of an hour after the dose had been administered, they experienced the usual effects of the medicine—viz. tremors in the muscles of the thighs and arms, and a pricking starting sensation in various parts. But these symptoms did not cease, as they had usually done before, in a few minutes; they rather increased in force, so as to approach almost to convulsive movements. A sense of great irritation along the throat, followed by severe vomitings, now came on.

During the accession of the convulsions, the patients became quite unconscious; when these ceased, the speech was restored, but the sight was still confused, and a most intolerable scorching headache supervened. The surface was

covered with a cold sweat, and the pulse was slow and irregular, but the respiration was short and hurried. On applying the ear over the region of the heart, it seemed that the impulse or stroke of its apex against the parietes of the thorax was often interrupted, while the ventricles still continued to expel their contents; for the pulse at the wrist not unfrequently beat thrice for one beat of the heart. Dr. *Pereyra* was struck with the marked resemblance of the symptoms, in many respects, with those of Asiatic Cholera.

It was evident that the immediate cause of danger was *un defaut d'innervation* in the circulatory and respiratory systems; and therefore that the main object to be attempted was to stimulate their action through the medium of the nervous system. Heat and mustard poultices were applied to the extremities, the spine and precordial region was rubbed with tincture of cantharides and ammonia in a strong decoction of *huaco* (a plant which had been used with advantage in several cases of cholera) was exhibited at short intervals. By continuing the use of these means for some time, all the unpleasant symptoms gradually abated, and finally ceased altogether.—*La Lancette Française.*

HINTS ON INTERMITTENT NEURALGIA.

Most cases of neuralgia have an affinity, more or less distinct and decided, with intermittent fevers. They generally commence with a shivering of the whole body—an essential character of a state of spasm; during which the pulse is small, rapid, and irregular, the skin dry, the features pinched, and the urine limpid.

When this condition has existed for a variable time, some nerve or nerves become suddenly seized with the violent pain of neuralgia, during the paroxysm of which the pulse becomes quickened and perhaps full, the skin heated, and the urine acquires a deep colour: in short, a well-marked re-action takes place.—As the pain subsides, the skin becomes moist and perspirable, and the patient usually falls asleep.

The length of most severe paroxysms varies from six to twelve or eighteen hours. Now all this presents a very striking analogy with the ordinary course of an ague-paroxysm. But we must not push the analogy too far. It is certain that the paroxysms of most neuralgiæ do not return with that periodic regularity which characterizes an intermittent fever; and moreover the treatment necessary for the one is often not at all adapted for the cure of the other. That cinchona and other *anti-periodic* medicines are totally inefficacious and even positively injurious in numerous cases of neuralgia, will not be disputed by any physician although they are admirable remedies in other cases.* Perhaps too the want of success in using them has, in very many instances, arisen from their mal-administration—from giving them during the paroxysm of the disease, as well as during the periods of intermission.

It will be often found that one or two large doses—say 10 or 15 grains—of quinine exhibited after the cessation of the pain, will at once make an impression on the disease, and have the effect of materially abridging the severity and duration of the next paroxysm. As long as the severity of the pain continues, anodynes and anti-spasmodics, combined with febrifuge medicines, are the best; but the treatment should be at once changed on the first abatement of the suffering.

This practical hint may be of use to the physician in guiding the principles

---

* It is perhaps necessary to observe that we entirely omit from our consideration, all cases of neuralgia, which are connected with any lesion of the nerves, or nervous centres.

of his treatment. It is far from being improbable that, if those cases of neuralgia which are idiopathic, and seem to be in any measure attributable to malarious influence, were managed on the same principles which are followed in the treatment of genuine ague, a more uniform success might be anticipated. These principles are few and simple—to check or mitigate each paroxysm by a full dose of opium and æther, or of other similar medicines immediately before the expected paroxysm, and to administer large and frequent doses of bark during the intermission or remission of the pain. We have strong reason to believe that the use of the bark during the severity of the paroxysm has a tendency often to aggravate rather than to alleviate the disease. This is certainly known to be true in the case of ague.

It appears that within the last six months there have been observed in Paris a number of cases of *masked* agueish neuralgia, which on many occasions have very closely simulated other diseases, and whose true nature therefore has been not unfrequently mistaken. In some of these, the complaint assumed the aspect of a feverish *hemicrania*, in others, that of *dyspepsia*, *gastritis*, or *dysentery*, and in a third set, that of *rheumatism*, *gout*, *or nephritic colic*.

Not a few of those anamolous cases of severe local suffering, which we observe in females in whom there is some irregularity or disturbance of the catamenial secretion, are probably of a *malarious* origin, and will be found to exhibit more of an intermittent character than has hitherto been supposed. Certainly at least the Peruvian bark, if judiciously and timely administered in such cases, will often effect a most rapid cure.

It is to be remembered too, in reference to this admirable remedy, that its efficacy is not limited to cases of genuine ague, in which the return of the paroxysms is regular, and the intermissions are well marked and distinct. In some of the worst forms of ague, in which the febrile state is never entirely absent, and in a large proportion of genuine remittent fevers, the bark is *the* remedy *par excellence*. The tact of the experienced physician is to hit the moment at which it may be advantageously administered; and then the best practice is to exhibit one or two powerful doses, so as to make a decided impression on the disease at once. Ten or twelve grains of quinine may be given, and this dose repeated twice or thrice at short intervals.

The quantity is to be gradually decreased as the violence of the malady subsides; but the use of the remedy should be continued for some time after the cessation of the symptoms.—*Bulletin General de Therapeutique.*

UTILITY OF SECALE CORNUTUM IN PARAPLEGIA.

Case 1.—A man 72 years of age, was admitted into the Hôtel Dieu at Aix, in consequence of such extreme powerlessness in his limbs that he could scarcely maintain himself erect. The sensibility too of the limbs was much impaired. A variety of local and general remedies had been tried, but without advantage. M. *Arnand* directed him to take an infusion of a scruple of ergot of rye every morning early. After a week's use of it, there was a manifest improvement in the patient's condition; and at the end of the third week—the dose had been increased to half a drachm—he could walk about the ward, and go up and down stairs with the aid merely of a stick.

A sense of pricking and occasional involuntary twitchings of the muscles of the limbs were experienced during the use of the remedy.

Case 2.—A soldier, while on board-ship, fell backwards on a beam of wood with such violence as to stun him: the loins were very severely bruised. By the employment of quietude, leeches to the part, &c., the local symptoms were

speedily relieved; but there remained an almost complete loss of power in the lower limbs, so that not only the patient could not support himself on his feet, but was unable to raise either leg from bed.

An infusion of the secale was therefore ordered to be taken every morning.

An amendment had manifested itself at the end of a week or ten days, when the use of the medicine was discontinued by the direction of another physician, who ordered the moxa to be applied on each side of the lumbar vertebræ.

Three months afterwards the state of the patient was not at all improved. The use of the ergot was now resumed, and the dose was gradually increased from 15 to 60 grains. This treatment was persevered in for five or six weeks, at which time the patient was entirely cured of all paralytic weakness.

Case 3.—A man, 26 years of age, had been for two years labouring under disease of the spine (Pott's disease), which was ultimately arrested by the use of caustic issues, &c. A great weakness of the lower limbs however remained behind, so that it was only with extreme difficulty that he could walk. As the disease of the spine seemed to be quite got the better of, the weakness was attributed to a mere atony of the muscles from the long-continued inaction which had been necessary during the treatment. A fortnight's use of the ergot restored him to the perfect enjoyment of his muscular strength.

Case 4.—In this case a degree of paraplegia had remained after a severe bruise of the loins. When all the inflammatory symptoms were completely removed, the patient commenced the use of the ergot: in the course of a fortnight the paralytic weakness had quite ceased.

Remarks.—The directly stimulating effects of the ergot on the uterus, bladder, and lower extremities, cannot be questioned by any practical man in the present day. It has been used, with decided advantage, not only in lingering labours, arising from imperfect contractions of the uterus, but also in other cases where this viscus is atonic, as in many cases of amenorrhœa, of passive uterine hæmorrhage, and of abortion; likewise in certain retensions and in incontinence of urine, connected with defective contractility of the bladder; and more recently in certain forms of paraplegia, and of muscular debility of the lower limbs.

Its *modus operandi* is probably by stimulating the lower portion of the spinal colum; its effects on the pelvic viscera and lower extremities being thus, as it were, secondary.—*Revue Medicale.*

Absence or Imperfect Development of the Uterus in a Woman who had never Menstruated.

Jeanne Fransaise, 46 years of age, was admitted into the Hôpital de la Charité in January of the present year, under the care of M. *Rayer*. She had a very pale complexion, and was of an exceedingly nervous temperament.

Although she had never suffered from any severe or dangerous illness, she had been for many years subject to distressing head-aches, and frequent anomalous pains in the stomach, throat, &c.

When 15 years of age, she had experienced the symptoms which usually announce the approach of the menstrual secretion: but neither then, or at any subsequent period of her life, has there been any appearance of uterine discharge.

She has had occasionally a sanguineous flux from the bowels, and once or twice has been affected with vomiting of blood.

When twenty years of age she had repeated attacks of diarrhœa for several

successive months: this usually lasted for three or four days at a time. There was also at this period a dartrous affection of the face.

During the last twelve months, she has suffered much from hysterical dispnœa, colic, and diarrhœa; the stools being several times deeply tinged with blood. the mammæ are well developed, and the nipples are projecting and surrounded with dark areolæ. There is no hair in the axillæ or in the pubes. The external organs of generation and the vagina are perfectly natural; but on examining this canal with the finger, no traces of cervix or os uteri can be discovered: it seems to terminate in a *cul-de-sac*. At the extremity of the passage, a firm roundish substance, of the size of a small walnut, might be felt through the lining mucous membrane: it was perceptible also by examination from the rectum. This was probably a rudimentary uterus.

MM. *Rayer* and *Velpeau* fully satisfied themselves of the accuracy of these statements.

The woman had never been married; but she had been cohabiting with a man; and it would seem that she had the ordinary sexual feelings.—*La Lancette Française*. (Mars.)

The Reporter of the preceding case has given references to numerous similar instances on record, so that the curious reader may be able to compare their phenomena together.

CÆSARIAN OPERATION: MALAPRAXIS OF M. DUBOIS: OBSTETRICAL ADVICE.

We shall briefly mention the leading facts of the case, as communicated by M. *Dubois* to the Royal Academy of Medicine, before offering any comments upon it.

A poor dwarfish deformed creature, 23 years of age, had the misfortune to become pregnant. Her height did not much exceed three feet; her head was disproportionately large, while the limbs and spine were irregular and crooked.

She consulted M. *Dubois* on the 24th of January, at which time she was seven months advanced. On examining the pelvis, per vaginam, he ascertained that its sacro-pubic diameter, was little more than two inches. (The other measurements are not given). Such being the case, "there was," says M. *Dubois*, "only one thing to do, viz. to perform the Cæsarean operation at the proper time." Two months elapsed before labour commenced: on the evening of the 28th of March the pains set in; and it was therefore determined to perform the operation next forenoon.

When the peritoneum was opened, a quantity of the small intestines immediately protruded, and they could not be replaced.

The attempt to do this brought on repeated fits of vomiting, which added much to the difficulty of the operation. The uterus was at length opened, the child extracted, and the placenta was brought away immediately afterwards, "in order to prevent," says M. *Dubois*, "the sudden closure of the wound, which has, in several cases, proved an impediment to the expulsion of the afterbirth."

The edges of the external wound were brought and retained in contact partly by the twisted, and partly by the interrupted suture: much difficulty was experienced in effecting this, in consequence of the violent straining caused by the frequent efforts of vomiting. The poor woman died forty hours after the operation.

We cannot dismiss this very imperfectly reported case, without making one or two remarks on the practice which M. *Dubois* followed. Is it that the induction of premature labour is prohibited in France? or is it that professional

men there regard the life of the child as more valuable than that of the mother? or do they wish us to believe that the Cæsarian operation is really not so formidable and dangerous an experiment, as we on this side of the channel have always regarded it? On which of these grounds is it that M. *Dubois* can justify the course which he has followed in the preceding case? Here was a woman, whom he knew was so much deformed that she could not give birth to a full-grown child. When she applied to him, she was in the seventh month of her pregnancy; yet nothing is done—nay, not even intended to be done, at that time; and she is told that she must submit to an operation, which in our opinion is almost certain death.

Had this poor creature chanced to live in London instead of Paris, we have little doubt but that a British accoucheur would have advised that premature labour should be brought on, and that, if necessary, the child should be delivered by means of the perforator and crochet. Any course, it seems to us, would have been preferable to that adopted with such lamentable results by M. *Dubois*.

SUCCESSFUL CASE OF CÆSARIAN OPERATION. FREQUENCY OF THIS OPERATION IN FLANDERS.

M. *Hoebeke*, surgeon at Sottegem in Eastern Flanders, has performed this frightful operation not fewer than *fifteen* times! An account of eight of these will be found in the February Number of the Bulletin Medical Belge of 1838. The particulars of the present case are these. A woman 39 years of age, and mother of three children, had for several years been afflicted with rheumatic pains, which had entirely crippled her and rendered her bed-ridden. After trying a variety of remedies, she took for some time whale-oil—to the use of which M. *Hoebeke* attributes the softening and consequent deformity of the bones. When he saw the woman first she was in the *sixth* month of pregnancy. On examination he found that the *rami* of the pubis and ischium almost touched each other, and that the interval between the tuberosities of the ossa ischii and the coccyx was so abridged that not more than one finger could be passed.

The correctness of these facts is confirmed by the testimony of Professors *Verbeck* and *Lutens;* and these gentlemen concurred in the necessity of performing the Cæsarian operation when labour came on. This took place about three months afterwards, and seems to have been performed under every disadvantage, in a miserable hovel, without any accommodation, and with insufficient assistance. When the uterine parietes had been divided, M. H. found that he was upon the placenta; he detached it somewhat, and by pushing it aside, he felt the bag of the membranes.

On rupturing these, the uterus contracted and pushed out one of the shoulders of the infant; but the operator quickly got hold of the feet and extracted it without difficulty. Another contraction of the uterus now took place, and expelled into the wound two placentas and the feet of another child! Considerable difficulty was experienced in extracting it, in consequence of the head being detained in the inlet of the pelvis: both children were alive. Having removed as many of the clots from the uterus as he could, and of the blood which had been extravasated into the abdomen, the operator proceeded to unite the wound by a few stitches and strips of adhesive plaster. A small portion of lint was introduced between the lips of the wound at its lower extremity. The operation was performed at about two o'clock in the morning. The subsequent recovery of the patient seems to have been wonderfully fortunate. On the second day after the operation, the infants were applied to the breasts, as the milk had begun to flow freely! During the first week there was a copious discharge of a rather offensive

serosity from the wound: the process of cicatrisation went on however so favorably, that, by the end of another fortnight, the patient was pronounced cured.

Remarks.—Appended to the details of the case are a few observations from Drs. *Marinus*, *Seutin*, and *Langlet*, who had been appointed to report upon it. They allude to the startling fact that M. *Hoebeke* has within the last few years performed the Cæsarian operation *fifteen times*. Deformities of the pelvis are, it would seem, of great frequency among the lower orders in the district of Eastern Flanders where he practices. Whether the use of whale-oil has any effect in inducing a softness of the bones,—as alleged by M. *Hoebeke*—is more than doubtful. It seems more probable that the cause is to be found in the damp unhealthy nature of the country, and in the penurious and hard-working life of the people. Certain it is that rheumatic complaints are of great frequency; and it appears that in all the cases in which M. *Hoebeke* has performed the Cæsarian operation, the patients had suffered for a length of time from them.—*Bulletin Medical Belge.*

It will be observed that no allusion is made in the preceding account to the propriety of inducing premature delivery by artificial means.—(*Rev.*)

THE SIGNS OF DEATH FROM HANGING.

It would seem that it is more difficult to establish, from the inspection of the body and the *post-mortem* appearances, that life has been extinguished by hanging than any other kind of violent death; and to this position we may add, that it is often no easy matter to determine whether the act has been the deed of the sufferer, or whether it has been perpetrated by another.

The recent discussions on the death of the late *Prince de Condé* and that of M. *Champion*, shew how far we are from possessing any exact data on this important topic of legal medicine.

M. *Duvergie* has for some years past directed his attention to this subject, and the results of his researches were recently submitted to the Royal Academy of Paris. The main object of his memoir is to shew that advantage may be taken of the microscope, by examining the state of the urinary and spermatic passages, and of the urine itself, and any seminal spots which may be found upon the linen of the deceased, to suggest some useful hints.

In the late affair of the assassination of M. *Tessier*, it was important, he says, to ascertain whether the act of copulation had been accomplished during that fatal night, when a man, who hitherto had maintained a most upright character, lost at once his life and his honour.

M. *Duvergie* proposed to M. *Cazenave*, the judge of the case, to submit to microscopical examination the urine which was in the chamber-pot; as it has been found that, after an emission, there always remain in the uretha a certain quantity of the spermatic animalcules, which are brought away along with the first urine that is voided afterwards. These animalcules sink down to the bottom of the vessel, in which the urine is contained.

The results of the inspection, in the case alluded to, were negative.

Since that period, I (M. *Duvergie*) have succeeded in detecting spermatic animalcules in seminal stains on linen of ten months' standing. The appearance indeed of these animalcules is often much altered by the manipulation which are necessary to detach them from the linen to which they adhere; and sometimes it is quite impossible to recognise them.

These various observations have led me, on the one hand, to examine with the microscope the contents of the urethra in persons who have been hanged, and, on the other hand, to enquire if the generative organs do not present after death

traces of the sanguineous congestion which precedes and accompanies the act of seminal emission, seeing that this act is an almost invariable consequence of death from suspension.

On laying open the canal of the urethra of a person, who has been hanged, we usually observe a quantity of mucous matter, which varies in consistence, in different parts, from perfect fluidity to a firm tenaciousness; it has a spermatic odour, and will be found to contain spermatic animalcules. These however are not always found along the whole canal, but perhaps at one point only—either near to the glans, or far back and close to the cavernous bulb.

In some cases, in place of these animalcules we discover a series of minute ovoid bodies, which somewhat resemble the animalcules without their tails; and, whenever this was the case, I invariably found a similar condition of the seminal fluid that chanced to be in the vesiculæ seminales at the time.

Was this an embryotic state of these animalcules, or one in which they were imperfectly developed? and is such a condition of the semen *le cachet de l'impuissance?*

A fact mentioned to M. *Duvergie* by M. *Turpin*, a distinguished micrographer, seems to give some foundation to this idea. He examined the seminal fluid of two brothers, who, although married for many years, had never had any children. It was in the state now alluded to, and was found to contain those ovoid bodies or corpuscules; they were observed to move about like the ordinary spermatic animalcules.

To return however to the immediate subject of this paper, M. *Duvergie* repeats the assertion that some of the seminal secretion is almost invariably found to be present in the urethra of a man who has died from hanging. All that requires to be done to obtain it, is to squeeze the canal from behind forwards. A small quantity should then be placed between two pieces of glass, and examined with the microscope.

According to our author's experience, *la presence du sperme dans le canal de l'urethre devient un signe certain de suspension operée pendant la vie*, especially if the generative organs exhibit at the same time a congested state, such as indicates that an erection had taken place at the moment of death; *car l'erection a un age donné de la vie coincide constamment avec la mort par suspension.*

According to M. *Duvergie's* researches, there is only one other cause of death which is accompanied with an emission of seminal fluid at the time; and that is a traumatic affection of the spinal marrow.—*Annales d'Hygiene, &c.*

On the Influence of Civilisation on the Increase of Insanity.

The memoir, from which the following observations are derived, was read at a recent sitting of the Royal Academy of Sciences by M. *Brierre de Boismont.*

"It is," says he, "a sad and painful spectacle to the philosopher to find that mental alienation keeps pace with the development of the intellect, grows with its growth, and threatens its overthrow just in proportion as it becomes most brilliant and exalted. If we were in need of proofs in support of this remark, unhappily the most distinguished names in literature, science, and politics, would flow in numbers from our pen."

That moral causes are much more influential in producing insanity than physical ones, has been most indisputably proved by M. *Esquirol* in his recent admirable work on "Des Maladies Mentales." Of 1049 insane patients admitted into the Bicetre Hospital from 1808 to 1813, 114 had become so from misfortune, 99 from grief, 78 from ambition, 58 from *vives revolutions d'esprit*, 55 from religion, 37 from disappointed love, 24 from the excitement of political

events, 20 from too great severity of restraint, and 49 from excess of mental application.

Here indeed the proportion as to numbers from mental and from physical causes is nearly the same; but in another place of his work, *Caspar*, (who has published the preceding statement in his Characteristik der Franz. Medicin) adds that of 1631 cases of alienation received into the Saltpetrière Hospital, 919 could be traced to mental and 712 to physical causes. M. *Esquirol* mentions that of 276 patients who have been treated in his *Maison de Santé*, in 169 the disorder was attributable to mental or moral, and in 107 to physical, disturbances. M. *Pinel* was of opinion that the proportion as to frequency of the former to the latter might be estimated as two to one; and the enquiries which we recently made in the lunatic establishments at Geneva lead to a similar conclusion. The most frequent physical causes seem to be abuse of spirituous liquors, accidents and injuries of the head, certain fevers, epilepsy, &c. Of the moral causes, none are so influential as violence and irregularity of the passions. Sometimes it is self-love that is in excess, or vanity, or ambition, or pride; at other times it is jealousy, or love, or fanaticism. Reverses of fortune, grief, the struggle of moral feelings and principles against almost irresistible impulses, disappointment in our projects and hopes, are not less powerful agents. To these we may add the workings of avarice, envy, hatred, and the desire of vengeance; of fear, anxiety, sudden translations from joy to grief, fatigue from protracted watchings or from intense and prolonged application of the intellect, &c.

As examples of the influence of the last-named cause, we may mention the names of *Euler*, *Leibnitz*, *Kant*, *Platner*, *Linnæus*, *&c.*—all of whom became either insane or imbecile towards the close of life.*

Great and overwhelming political changes almost invariably occasion a great increase of insanity at the time, and soon after their occurrence. There is always, it is to be remembered, a vast number of persons in every community, who, although not actually insane, are so weak in their intellects and so excitable in their feelings, that any sudden public commotion is sufficient to upset the balance of their minds. The cruelties, the tyranny, the proscriptions, the awful prevalence of unbridled and licentious passions, the frequent changes of government during the latter years of the Roman republic and under the sway of the emperors, were fruitful causes of melancholy, despair, and madness. Then the frightful persecutions against the Christians, during the first two or three centuries, contributed greatly to increase the prevalence of insanity. Such indeed is always the result of torturing punishments, when inflicted for religious and political differences of opinion. The imagination becomes heated to a wild enthusiasm, and the dread of suffering and punishment is replaced by a bold aud challenging indifference.

---

* One of the tables of M. Esquirol exhibits the following view of the influence of different mental and moral feelings in inducing insanity. Of 169 cases, 33 could be traced to political excitement, 31 to domestic distress, 25 to disappointed love, 16 to wounded self-love, 14 to reverses of fortune, 14 to jealousy, 13 to excess of study, 12 to disappointed ambition, 8 to fear, 2 to misanthropy, 1 to fanaticism. (We are somewhat surprised that so few cases should have been traceable to this latter cause, if indeed it means religious enthusiasm).

In another table we have the physical causes of insanity arranged as follows: Of 107 cases, which seemed to arise from some corporeal injury or disease, 4 were traced to convulsions during pregnancy, 2 to epilepsy, 19 to menstrual disorders, 21 to miscarriage and labour, 11 to a critical period of life, 4 to the progress of age (*progrés de l'age*), 4 to insolation or strokes of the sun, 4 to injuries of the head, 12 to fever, 1 to syphilis, 18 to abuse of mercury, 4 to intestinal worms, and 10 to apoplexy.

Again,—the history of the crusades may furnish to the medical philosopher an ample field for tracing the influence of mental excitement, in producing a wide-spread phrenzy among a people, approaching almost to a state of absolute madness.

The annals of these extraordinary enterprises are filled, it is well known, with accounts of apparitions of angels and saints, of divine revelations and fabulous exploits. These hallucinations were most conspicuous during the two first crusades: the third lost somewhat of an epical, and acquired more of a romantic, character. The cause of this change can be easily traced. It was then the reign of the troubadours; who, turning the imagination from the enthusiasm of religion to that of love and glory, fostered the growing tendency to *les folies amoureuses et chevaleresques*. Hence erotomania, nymphomania, and various other forms of hysteria, seem to have been unusually common during this period.

About the same time too, arose that wild and ferocious sect of fanatics, who first acquired the appellation of *Assassins*, and who, it would seem, devoted themselves under the most awful and solemn vows to perpetrate the murder of all those who were denounced by their chief, *the old man of the mountain*.

According to the researches of M. *Langles*, these fanatics were in the habit of drinking largely of a beverage, prepared by distillation from the pistils of the hemp, which had the effect of producing intoxication and the most uncontrollable excitement of all their feelings.

The eleventh century, so celebrated for the first crusades, was witness of another folly which had some analogy to *tarentism*, or the alleged effects produced by the bite of the tarentula. During the paroxysms, the patients beat and tossed themselves about like madmen, making the most extravagant gestures, leaping and twisting their bodies about, and often wounding both themselves and others very severely. They were considered by many, in these times, as possessed of devils and being under the influence of the evil spirit. A good account is given of them by *Hecker*, in his memoir of the epidemic chorea of the middle ages.

If we remember that, from the 12th to the close of the 14th century, almost every country in Europe was ravaged by the most dreadful epidemics of measles, small-pox, leprosy, St. Anthony's fire, and the plague, we shall probably be able to explain, in some degree at least, the causes of those singular diseases of the nervous system, which attracted at this period so much attention under the names of St. Vitus', St. John's, and St. Guy's dance.

During the fit of dancing, which with some lasted for hours at a time, the persons seemed to be quite unconscious of any outward impression, and screamed and shouted in the most horrid manner. Some said that they thought they were plunged in a stream of blood, and that it was to extricate themselves from this horrible dilemma, that they kept leaping and jumping so high.

Others said that they saw the heavens open and the Saviour and Holy Virgin, seated upon their thrones, beckoning unto them.

This phrenzy gradually spread over numerous districts of France, Germany, and the Low Countries. Peasants left their ploughs, workmen their trades, and even mothers their homes and their children, to join these bands of maniacs, wherever they appeared. During the fifteenth century, a variety of means were resorted to in the hope of exorcising the malady; music was considered one of the most effectual. In the next century it gradually decreased, and passed away. About the same epoch we may place that strange form of insanity, which acquired the name of *tarentisme*.

The persons so affected, whether they had indeed been bitten by a tarentula or whether they merely supposed that they had been, fell, we are told, into a state of melancholy, and seemed to lose the use of their reason, as if they were oppressed by the abuse of some strong drink. Some were constantly in tears, while some were tormented with amorous delirium, and others actually died in paroxysms of laughter.

The fifteenth and sixteenth centuries are characterized by a most extravagant belief in magic and witchcraft. It is the epoch, so to speak, of magicians, of sorcerers, of demono-maniacs, exorcists, and inquisitors. Thousands of miserable creatures expiated, in flames and other modes of frightful torment, the misfortune of having lost their reason.

The belief in witchcraft may be traced to that very prevailing idea that there are spiritual essences or angelic forms, intermediate between earth and heaven; some of these being of a good and others of a malicious and wicked nature.

It was to a direct communication with these latter that most of the operations of the *black art* were ascribed. It is a melancholy reflection, which the history of this epoch forces upon the mind, that the very persecution of these and other such absurdities seemed to increase their prevalence and prolong their duration.

From about the year 1484, when the belief in magic began to play an important part in the affairs of Europe, and during upwards of two centuries, we read of frequent and most horrible state murders.

No sooner was the work, the *Malleus Maleficorum*,—a theological and juridical commentary on the crimes of witchcraft,—made known, than the number of those madmen, who pretended to exercise the art, rapidly increased in almost every country!

Del Rio mentions that 500 persons were condemned to death at Geneva in three months of the year 1515. Upwards of a thousand perished in one year in the diocese of Como; and, on an average, a hundred were executed there annually. In France the number of executions is scarcely credible. We read of 1200 persons being accused of dealing with forbidden things at one time; and the records of the parliaments of Bordeaux, Paris, and Rouen, are filled with accounts of such trials.

Germany too, as indeed might be expected, exhibited an equally lamentable picture of human credulity and persecution.

At Wurtzburg, in 1627, during a space of two months and a half, there were 29 successive *auto-da-fes;* on which occasions 157 persons, accused of witchcraft, were burned at the stake. It is estimated that, during the two years from 1627 to 1629, nearly 10,000 persons were condemned to death in Germany for witchcraft and sorcery. The moral effect of these atrocities was actually to aggravate the very evil, that they were madly instituted to check. Many of the victims, while boasting of having had sexual intercourse with Satan and his followers, did not hesitate to avow the justice of their condemnation! This however was not always the case; for often it was only under the torture of the wrack that such confessions were extorted.

The commencement of the eighteenth century was marked by a singular form of epidemic madness in Hungary, Silesia, &c., which acquired the name of *Vampirism.* The subjects of this strange delusion believed that the soul of their enemy after his death could appear to them, and inflict various acts of vengeance, such as strangling them, sucking their blood, &c.

We are told that many of the victims of this delusion died from the mere effects of terror, and that the magistrates and public authorities of different places actually caused the graves of the suspected criminals to be opened, and their bodies to be burned by the common hangman.

The first appearance of the *convulsionaires* in France was also in the eighteenth century. These fanatics were seized with violent convulsive and cataleptic paroxysms, during which they tossed and rolled themselves about on the ground, shaking their heads and limbs in the most fantastic manner. They all exhibited an air of exalted and mystic devotion, various forms of hysterical passion, and a state of nervous excitement, which very often terminated in insanity or homicidal monomania.

Such have been some of the remarkable forms of phrenzy arising from religious feelings. We have now to consider the influence of another set of feelings,

which have subsequently—more especially of late years—taken the place of the former and have been quite as influential as their predecessors—we allude to the enthusiasm of political opinions. M. *Boismont* remarks that "England, by its revolution of 1688, gave the signal of new disorders in the mental and moral world." The frightful increase of insanity in France, for several years after the revolution of 1792, has been so frequently alluded to that it is not necessary to enlarge upon the subject.

The horrors and atrocities of this period being followed by the grinding tyranny of military despotism, the cause of mental alienation may be said to have changed from the overwhelming grief of the preceding period to a sense of oppressive fear and dread.

The two great national reverses also—the retreat from Moscow, and the entrance of the allied troops into Paris—of the latter years of the empire, were fruitful sources of insanity. Then followed the restoration of the Bourbon dynasty, with the political condemnation of numerous individuals, and the sudden exaltation of others, giving rise to the violent excitement of grief, fear, hatred, joy, and hope. For fifteen years after this period, there was found to be a marked increase in the number of the insane in France. Since that period, the revolution of July, and the invasion of the epidemic cholera were both observed to be followed by a similar increase.

M. *Boismont* concludes his remarks by alluding to the national features and causes of insanity in different countries.

In treating of these applicable to England, he points especially to the numerous marriages of expediency (by which mental as well as physical irregularities are propagated); to the excess of mercantile speculation by which every six or eight years a national crisis or panic is induced; to the vehemence of political feeling and the *agitations d'une liberté très-large*, to the innate national pride of the people, the indolence arising from wealth and luxury, the abuse of spirituous liquors, and lastly to the numerous religious sects, which are supposed to amount to nearly 3000. (Surely this is a most exaggerated statement.) *Pinel* had previously shewn how much the diffusion of Methodism has contributed to increase the prevalence of insanity in England. The same remark is, in the present day, perhaps more justly applicable to America than to Great Britain. The numberless sects of religionists in the former country, and the senseless, nay impious, acts of alleged devotion which they practise, must necessarily have a powerful effect in unhinging the minds of weak and credulous people. It is really doubtful whether an uncontrolled and irresponsible license of religious feeling is not quite as bad for a community as the bigoted intolerance of a dominant church. —*Annales d'Hygiene, &c.*

Observations on Vaccination.

The Commission, which was appointed last year by the Institute of France to examine the various papers and memoirs sent in for the Monthyon prize, consisted of MM. *Magendie*, *Serres*, *Double*, *Roux*, *Dumeril*, *Larrey*, *Savart*, *Blainville*, and *Breschet*—the last-named being the reporter. We need scarcely inform our readers that these gentlemen are among the most distinguished physicians and surgeons in the French metropolis. Among other questions, the very important one of Vaccination—how far it has succeeded as a preservative against the variolous contagion; whether of late years it has lost in part its protecting influence; whether the practice of re-vaccination ought to be encouraged and prescribed—and various other correlative enquiries, came under their notice, and received a very ample and candid investigation.

It appears however, from an attentive perusal of their report, that the commissioners themselves are a good deal puzzled what conclusions to arrive at on several of the topics, and that they cautiously abstain from committing themselves by any dogmatic expression of their opinions.

That small-pox has, within the last eight or ten years. not only been of much more frequent occurrence in almost every country in Europe than it had been for the previous quarter of a century, but that it also seems to have been progressively and gradually on the increase, both as regards frequency and severity, is a fact which cannot be disputed. *Jenner* and many of his ardent followers had fondly hoped that, by the general adoption of vaccination, the disease might possibly have been rased from the catalogue of the ills that flesh is heir to—perhaps so glorious an achievement is not ever permitted to mere human agency. Sufficient good however has flowed, and still continues to flow, from his great discovery, to entitle his name to be ranked with those of the greatest benefactors of the human race.

Jenner imagined also that, when the constitution had been once fairly subjected to, and influenced by, the vaccine virus, it would remain through life insusceptible of the variolous contagion.

It was certainly somewhat premature to announce such a belief in the earlier days of vaccination; as the truth of the position could be ascertained only by the results of time and experience. The occurrences of late years have unfortunately disproved the correctness of his anticipations. It is not easy, however, we should remember, to determine exactly and with precision any one of the questions connected with this important subject. For while it must be admitted that, with our knowledge of passed events, we cannot rationally maintain the opinion of Dr. *Jenner*, and while therefore we must allow that vaccination is not an invariable preservative against the attacks of small-pox, it is to be remembered that in a vast number, perhaps the majority, of cases of small-pox hitherto occurring in vaccinated persons, it is next to impossible to discover whether the systems of these persons had been *fairly* and *fully* influenced by the cow-pox virus. It would be very interesting to discover how many of the individuals, who had been vaccinated by *Jenner* himself or under his immediate superintendence, ever suffered from variolous contagion; and what proportion the number bore to that of the cases of small-pox occurring in individuals vaccinated subsequently to his time. That much greater attention was paid by the great discoverer himself and by the other first vaccinators to all the minutiæ of the operation—so as to insure an adequate affection of the constitution by the inserted virus—than has been paid of recent years, is too well known to every medical man. All that has too often been required or expected from the operation has been the mere development of one or more vaccine vesicles at the seat of puncture; and when such was the case, the person has been regarded to have been *duly* vaccinated. It is more than probable, that the protective or preservative power under such circumstances is very frequently partial and insecure; and there are some observations in the recent valuable work of Dr. *Heim* of Wurtemburg on this subject, which, if found accurate by other enquirers, will shew how imperfectly vaccination has been generally performed in his country.

Dr. *Heim* has endeavoured to shew that, when only one or two vaccine vesicles are formed in the arm, although many punctures had been made, the system is to be considered as only partially and temporarily protected against the influence of the variolous contagion. He has found that, under such circumstances, if the operation be repeated a twelvemonth or so afterwards, a regular vaccine vesicle will perhaps form over each separate puncture—indicating that the system seemed to be more readily acted upon at the second than at the first time. In some cases, where the vesicles were few and imperfectly developed on the eighth or ninth day, the children were re-vaccinated from their own

arms, and more numerous and more perfect vesicles were formed then than had been before.*

From these facts, and from the general results of his experience, Dr. *Heim* recommends—and we believe that Dr. *Gregory* of London is of the same opinion—that not fewer than ten or twelve punctures be made on the second as well as on the first vaccination.

It is more than probable that our practice, in this particular, should vary somewhat according to the activity or inertness of the lymph employed; and therefore that two or three insertions of a very active virus may produce quite as much constitutional impregnation as ten or twenty with one of inferior potency. But it will not do to dogmatise or make any very positive assertions on this subject; we must have more *facts*, true, trustworthy, and oft-observed facts, before we can arrive at any absolute conclusions. This only we may assert, that the protection against small-pox contagion will, in all probability, be more perfect and secure when there has been some constitutional disturbance during the development of the vaccine vesicles, than when there has been none.

The *next* question, to which we shall briefly allude, is the curious one—Has the vaccine virus, by having passed through a multitude of human systems, during a succession of many years, become deteriorated or less active than the virus taken directly from the cow itself?

It is certainly not a little surprising that scarcely any attempts to renew the supply of the vaccine lymph from its primary source have been made in any country from the time of Jenner till within the last five or six years. Perhaps this is attributable to the circumstance of the lymph in general use having produced regular and well-formed vesicles; and few medical men having any opportunities of obtaining it except from public vaccine institutions or from their own patients, they have been quite satisfied with its efficacy, provided the ordinary vesicles followed its insertion.

From a memoir published two years ago in the Transactions of the Royal Academy of Medicine in Paris by M. *Bousquet*,—(an analysis of which our readers will find in the Foreign Periscope of the Medico-Chirurgical Review for April 1837),† it would appear that until the preceding year, 1836, there was not a single authentic and trustworthy account of the genuine *pock* having ever been observed on the cow, throughout the whole of France. M. *Bousquet* acknowledges that the genuine cow-pox in the animal has, in all probability, not been so rare as may at first be inferred from this statement; and he has no doubt that, if medical men had taken the trouble to visit dairies with the view of discovering the disease, numerous opportunities of observing it, and therefore *renewing* the lymph from its original source, might have been found. He goes on to state,

"The ancient committee of vaccination in France alluded to only one instance of the genuine cow-pox (in the animal) having been observed by any of their

---

* This is nearly the *test* operation which was suggested and pretty extensively practised by the late Mr. *Bryce* of Edinburgh. He recommended that the child be re-vaccinated on the sixth or seventh day with the lymph from the vesicles on its own arm, and he found that the second crop of vesicles were as far, or very nearly so, advanced in maturation by the twelfth or fourteenth day as the first—thus affording a *test* that the system had been under the influence of the virus at the period of the second operation.

† The whole article is well deserving an attentive re-perusal, and to it we must refer our readers for details; but as all may not have the Number at hand, we have thought proper to repeat some of the more interesting observations of M. *Bousquet*, especially as his authority on questions connected with vaccination in France stands very high.—(*Rev.*)

correspondents; and that instance itself is of very doubtful authority. It occurred in Prussia during the year 1812; but the account of it is far from being satisfactory. Since the date mentioned, a score, at least, of physicians in different parts of France have described instances of the genuine cow-pox in the animal, as observed by them; but in all these cases without exception, the failure of vaccination with the lymph thus obtained, has sufficiently proved the error of the announcement." *

A similar want of success has attended by far the greater number of experiments made in other countries with fresh lymph derived from the cow; but this has very probably been attributable to the vesicles on the udder, from which the lymph has been taken, having been generally those of the *spurious* and not of the *genuine* cow-pox or vaccinia.

To proceed with M. *Bousquet's* report, we have now to mention that, in 1836, a case of the genuine disease was recognized on the fingers of a dairy-maid, residing at the beautiful village of Passy in the neighbourhood of Paris. The contents of the vesicles were already thick and purulent when the patient was first seen. In consequence of this circumstance—the advanced or mature state of the lymph†—the first or direct inoculations with it succeeded only partially; but in the second set of experiments—with the lymph taken from the arms of the children who had been first vaccinated—the operation succeeded in all, and the vesicles which were formed "were altogether finer and more perfect, being larger, more depressed in their centres, of a more silvery hue, and more firm, than those induced by the *old* lymph or that in ordinary use." The surrounding inflammation too was in most cases much more extensive and severe, and the constitutional irritation was greater, than we usually observe.

M. *Bousquet* had, at the date of his memoir, used the *new* lymph in several hundred cases, and with an almost uniform success, having failed with it much less frequently than with that in ordinary use. He also re-vaccinated many persons with the *new* lymph, and succeeded in producing perfect vaccine vesicles in numerous cases where the re-insertion of the ordinary lymph had caused only *une fausse vaccine.*

Such is the sum and substance of M. *Bousquet's* valuable report of perhaps the only authentic instance of experiments, made in France with the vaccine lymph taken directly from the animal itself.

Let us now briefly examine the statements of the German physicians on this subject.

Dr. *Heim* in his recent work assures his readers that, in Wurtemburg, within the last five years, the genuine disease has been found in no fewer than 188 cows, and that lymph has been taken from 40 of these, for the purposes of vaccination. Here then surely were ample opportunities of ascertaining the comparative value of the *primary* and of the *transmitted* or *humanised* vaccine lymph, and therefore of deciding the much mooted question, whether the lymph in oridinary use has,

---

* Dr. *Bousquet* had, in a former part of his memoir, alluded to the various anomalous eruptions, sometimes observed on the udders of cows, which are apt to be mistaken for the genuine cow-pox or vaccinia. The vesicles of the latter, he says, always present a blueish or somewhat livid hue; they are surrounded with an erysipelatous redness, are apt to degenerate into troublesome phagædenic sores, and are usually accompanied with a good deal of disturbance of the animal's system.—(*Rev.*)

† The older or more mature that the lymph is, the less active generally is it; and therefore the greater is the chance of failure with it, and the more necessary it will be to make numerous punctures. Two or three are sufficient when we use *early* lymph, whereas ten or a dozen should be made when the lymph is *mature* or taken at a late date.—(vide *Med. Chirurg. Review, April* 1837.)

or has not, become deteriorated or weakened in consequence of having passed through so many human systems. But alas! we do not find that our German brethren have thrown the least light upon the subject. Indeed we are forced to doubt the accuracy of the statement that the *genuine* disease has been so frequently observed of late years in the kingdom of Wurtemburg; and we think it more than probable that the greater number of the eruptions on the teats of the animal had been of the false or spurious kind. In no other way can we account for the unsatisfactory information which Dr. *Heim* and other German writers have given respecting the comparative efficacy of the primary or original, and the transmitted or humanised, vaccine lymph.

Although therefore this question is far from being decided, we are of opinion that there is sufficient evidence to show that it would be prudent to have recourse occasionally to the cow for the supply of the vaccine lymph. All reasoning is in favour of the idea that a contagious virus becomes, *cæteris paribus*, less active by being transmitted from one body to another.

It is unnecessary to prosecute our remarks on this subject, as there is so great a want of accurate data to reason from. We shall therefore now proceed to make a few observations on the propriety of general re-vaccination, as a means of opposing the gradually increasing diffusion of the variolous contagion.

Independently of the results of experience, as to the necessity of re-vaccination, mere reasoning on the disease of cow-pox must naturally lead us to such a conclusion, and might certainly have satisfied the opponents of the practice that their objections were, *à priori*, fallacious, and opposed to the results of observation, or to the natural history, so to speak, of other diseases.

For example, does not every one admit, that an attack of small-pox itself, whether it be caught in a natural way or be communicated by the direct inoculation of the virus, is not an absolute nor infallible preservative against a future attack of the disease? So far, indeed, is this from being the case, that in several epidemics of variola it has been found that not only a greater number of persons, who had previously undergone the disease, have been seized with it than of those who had been vaccinated, but also that it was more severe in the former than in the latter class of persons.

If, therefore, one attack of small-pox itself does not render the individual absolutely insusceptible of the variolous contagion, how can we expect that the communication of cow-pox should afford an infallible protection?

There is another consideration which deserves to be noticed on this head.

It has been observed, that the matter of inoculated small-pox becomes less and less energetic, for future inoculations, in proportion to the number of systems through which it has been transmitted; and there is reason to suspect that persons inoculated with this feebler matter are more liable to future attacks of the disease, than those in whom a more potent matter was inserted.

We do not mean to lay down these positions as incontrovertible, or as absolutely proved; but we again repeat, that their truth is warranted by the experience of some of the best observers.

Moreover, in reference to the cases of a second attack of small-pox, it has been uniformly, we believe, found that there has always been a lapse of many years—from 15 to 25—between the dates of the two invasions. There are no instances recorded of a second attack having occurred soon after the first. Does not this seem to show that the constitution has retained for a certain period an insusceptibility of being acted upon by the contagion? and is it not probable that this insusceptibility has become less and less, in proportion to the time that has elapsed from the first attack?

If such, then, be the case with small-pox itself, regarded as a preservative against a second attack, how can we be surprised that cow-pox should not communicate a permanent security against the invasion of the disease?

The French Commissioners, while avoiding the expression of their sentiments

in too authoritative language on certain topics,—such as whether the vaccine virus degenerates by being transmitted through numerous human systems successively, and whether that in present use ought to be entirely superseded—recommend that recurrence should be had occasionally to the primitive source in the cow, and that the practice of re-vaccination, after the lapse of about fifteen years, should be encouraged throughout France.—*Memoires de l'Academie.*

TREATMENT OF STOMATITIS, OR GANGRENOUS INFLAMMATION OF THE MOUTH.

As the disease usually commences in the gums about the roots of the teeth, we should endeavour to confine it there, by means of detersive and gently caustic applications—and of these the dry chloruret of lime is the best—if we are called in to the case sufficiently early. It is useful to interpose some substance, such as a thin plate of ivory, cork, or metal, between the affected gums and the opposed cheek, in order to preserve as much as possible the latter from the contact of the septic discharge—and the patient should be made to spit out the contents of the mouth very frequently. If he is too young to use a gargle, we must have recourse to the employment of injections, by means of a syringe or bag and pipe;—these should be used every hour. The lips, and more particularly their commissures, should, at the same time, be smeared with some unctuous substance to protect them from excoriation.

If the disease has already extended to the cheeks, tongue and palate, we cannot do better than at once apply the dry chloruret of lime to the diseased surfaces; this application should be repeated every two hours.

The mode of using it is as follows:—

With the moistened fore-finger take up some well pulverised chloruret, and rub all the affected parts freely with it; then let the patient wash out the mouth by gargling; or, if he is too young, we must effect this by squirting in some fluid. In the course of two hours or so, the operation should be repeated, and the patient should be encouraged to allow the dry chloruret to remain on the parts as long as he possibly can. As this salt is very disagreeable, we cannot expect this in young children. These frictions sometimes occasion slight hæmorrhage; but this is rather useful than otherwise, as it tends to diminish the engorgement around the diseased parts.

The chloruret acts as a gentle caustic, and as an antiseptic or disinfecting remedy, causing a new irritation which supplants and removes the diseased action.

By following out this course of treatment, M. *Taupin* (the author of the memoir) has repeatedly seen gangrenous stomatitis, which had lasted for several months, and had resisted every other mode of management, cured in from five to ten days.

In private practice it very rarely fails; and in public or hospital practice it would certainly be as successful, if it was pursued with due attention and care.

M. *Taupin* has never seen any accident result from its employment. If any of the chloruret should be swallowed, it almost immediately induces vomiting, and is thus rejected. The only disadvantage attending its use is that the teeth are blackened, and frequently remain so for several weeks.

If the stomatitis be accompanied with much swelling of the cheek and lips, it will be found useful to apply two or three leeches at the angle of the jaw most affected, and smear some mercurial ointment around the part.

Whenever there appears to be no removal of the eschars, the healing of the ulcers on the gums and cheeks will be much promoted by touching their surfaces occasionally with nitrate of silver.

As long as the disease retains its buffy (*couenneuse*) or ulcerated form, the local means now mentioned will, in almost every case, be found adequate for the cure; but when it becomes carbuncular and gangrenous (*charbonneuse*) it will be necessary to resort to the application of more powerful caustics. The pure muriatic acid is one of the best.

It is to be remembered that in some bad cases, where the gangrenous parts are of considerable thickness, the mere application of the acid to the mortified surface is not sufficient; we must previously detach as much of the eschars as possible by means of scissors and forceps, and then apply the acid to the subjacent surfaces. In this way only shall we succeed in arresting the gangrenous action. It is always necessary to guard the tongue, teeth, and lips from the contact of the acid; and, with due care, this may always be done.

If the gangrenous stomatitis has commenced in the central part of the cheek, we should in the first instance use leeches, the mercurial unction, and scarification of the mucous texture; and, whenever the eschar appears, the muriatic acid should be at once applied. When the eschars begin to fall off, injections of camphorated cinchona or of solution of chloride of lime should be applied frequently, or the dry chloride may be used as already explained. In the worst cases, the subjacent bone becomes carious and necrosed; but the same mode of treatment is still to be continued.

We have not yet spoken of the internal treatment that is to be used at the same time. The bowels should be kept gently open, but not much purged; and bark, wine, beef tea, &c., should be administered freely. In some unfavourable cases, the disease of the mouth is complicated with symptoms of pneumonia or enteritis. Such cases are almost always fatal: bleeding is out of the question, and all that can be safely done is, to administer opium and antimony in repeated doses.

Before closing these remarks, we shall very briefly allude to a few local applications, which, though not so decidedly and uniformly efficacious as the chloride of lime, succeed in a good many cases. Alum is sometimes, but rarely, used in any of the hospitals in Paris. The muriatic acid mixed with honey is often of marked utility; so also is the pulp of the lemon, which will frequently succeed very well, when the disease is limited to the gums.—*Journal des Connoiss. Med. Chir.*

CASES OF OZŒNA, WITH REMARKS ON TREATMENT.

Case 1.—A young woman, 22 years old, and whose general health was robust, had been affected with *tinea faciosa* from the third to the sixteenth year of her age. At this latter period the submaxillary and submental glands suppurated; and shortly afterwards she began to experience symptoms of a nasal complaint, a sniffering slight discharge from the nostrils, and an almost constant headache. Her physician, considering the disease as of strumous origin, recommended the internal and external use of iodyne and hemlock, and enjoined at the same time an invigorating regimen of diet and exercise.

No decided amendment followed; and next year the girl was put under the care of an *officier de santé*; who, supposing that there was a polypus in the right nasal passage, occupied himself with endeavouring to destroy it by means of caustics.

Two years subsequently, the right ala of the nose was attacked with painful fissures, and then with an ugly-looking ulceration. She applied to another *officie de santé*, who was in the habit of travelling up and down the country. This *medicastre* applied a stimulating red-coloured ointment to the ulcerated surface; which became in consequence violently irritated, and speedily increased

in size. When she consulted M. *Cazenave*, the following was the state of the local disease.

The right ala of the nose was deeply fissured and ulcerated; there was a genuine *lupus exedens*. The swelling of the parts and the contraction left by several cicatrices had narrowed considerably the nasal openings. The cartilaginous septum was destroyed, and both nostrils were obstructed with thick tenacious crusts. A copious and fætid discharge oozed out at intervals; and from this, as well as other symptoms, it was suspected that the ossa spongiosa had become carious. There was no reason to suspect the existence of any syphilitic complaint.

M. *Cazenave*, regarding the case as one of *lupus* and unhealthy ozœna, not necessarily connected with the scrofulous constitution, recommended the following treatment.

A grain and a half of arseniate of iron to be made, with extract of hops, into 24 pills; one of these to be taken every night; and a bitter infusion to be taken twice or thrice during the course of the day.

The ulcerated surface of the nose to be sprinkled with *Dupuytren's powder*, which consists of

Arsenious Acid, 12 grains.
Calomel, 1 ounce.
Mix well together.

The application occasionally of the nitrate of silver was also recommended.

The patient being obliged to return home, which was at a considerable distance from Bourdeaux, M. *Cazenave* is not able to announce the result of the case.

The *second* case occurred in a gentleman, 30 years of age, and had existed for a great length of time, when M. *Cazenave* was consulted. There was a slight, but offensive, discharge from the right nasal cavity; three points of ulceration were visible; and the patient was much annoyed by the nostrils being frequently plugged up with viscid mucus.

The ulcers and the lining membrane of the nostrils were repeatedly touched with nitrate of silver, and pills, containing the same salt, were administered internally.

M. *Trosseau* of Paris saw the patient once or twice, and recommended the use of an injection of the nitrate, and occasionally of snuffing a mercurial powder up the nostrils. He prescribed also pills containing the proto-ioduret of mercury, as nine-tenths of the cases of ozœna are, in his opinion, connected with a syphilitic taint of the constitution.

The result is not given; and the other cases reported by M. *Cazenave* are equally imperfect.

Suffice it to say, that he seems to trust almost altogether to the tropical use of the nitrate of silver in the treatment of ozœna.—*Gazette Medicale.*

OPHTHALMIA TREATED BY BLISTERING THE EYELIDS.

Case 1.—Madle. D., 28 years of age, had been troubled with ophthalmia of the right eye for six months, when she applied to Dr. *Beyres*. The conjunctiva was extremely tumefied and of a deep red colour, and exhibited numerous minute abscesses on its surface. The constitutional health was not good, the glands of the neck being enlarged, the catamenia irregular, and the digestion imperfect. Almost all the usual means for the relief of chronic ophthalmia had been used; but hitherto ineffectually. Dr. B. was therefore induced to give a trial to the practice of M. *Velpeau*—that of blistering the eyelids of the affected side. The blister was not removed for 24 hours, although the patient had suffered a great

deal during the time: the lids were much swollen and were glued together. They were bathed with an emollient decoction and then smeared over with a mild cerate. Two days afterwards the swelling had quite subsided, and the conjunctiva was found to be much less inflamed: a weak astringent collyrium was ordered. The eye gradually recovered a healthy state, so that at the end of the third week the patient was reported quite well.

Case 2.—A woman, 41 years of age, had been affected with ophthalmia of the right eye for several months, when she put herself under the care of Dr. B. She was treated exactly in the same manner as the preceding patient; and the cure was perfect, we are told, by the end of the second week.

In the third case, the ophthalmia was much more recent in date than in the two former cases. The blistering treatment seems however to have been quite as successful. In the *fourth* case, the disease had existed for nearly four years, and the patient had been repeatedly in the hospital in hopes of being permanently relieved. A blister was applied over the lids of the affected eye; and in a week afterwards, we are informed that the conjunctiva had recovered its usual white colour, and that the edges of the lids only were now diseased.—*Journal des Connoiss. Med. Chir.*

On Rheumatism of the Uterus during Pregnancy.

M. *Dezeimeris* very justly remarks that the mere title of this article would have been laughed at, a few years ago. It is to the observations of the German writers that we owe our knowledge of this affection—rheumatism of the uterus—the symptoms of its existence, its influence upon the progress of pregnancy, and the proper method of treating it. The writings of *Carus*, *Siebold*, *Joerg*, &c. will be found to contain accurate descriptions of the disease; and from them we shall extract the particulars of a few cases, with the view of more clearly pointing out its most prominent features or symptoms.

Case 1. A woman, pregnant with her fourth child, was seized, after exposure to cold, with a tensive darting pain in the region of the womb, accompanied with fever. The use of diaphoretic medicines relieved the pain; but it was quickly replaced by flying pains in the upper and lower limbs. During her accouchement the uterine contractions were excessively painful, and yet produced little or no effect in dilating the orifice of the womb. Even the contact of the finger, during an examination, caused the greatest distress to the patient.

By the employment of venesection, and of hot fomentations to the abdomen, the sufferings were much relieved, genuine labour-pains came on, and the child was expelled. On the third day afterwards, the rheumatismal pain of the uterus returned, and bleeding was again resorted to. Almost immediate relief was obtained; but now the fore-arms became so painful that the patient could not hold her child to her breast. Thence they were transferred to the left knee, which became excessively tender and swollen. It was a long time before this local attack was subdued, and the patient recovered the use of the limb.

Case 2. A young woman, pregnant with her first child, was admitted into the Maison d'Accouchement at Treves.

She had, for several day before, been occupied with washing linen in a cold damp room. Pains, like the early pains of labour, came on; but although recurring at regular intervals for a considerable time, but little effect had been induced on the state of the os uteri. Next day, the patient was nearly in the

same condition; no part of the child could yet be felt, and the cervix uteri was painful when touched. On the following morning, the uterine orifice was dilated to about the width of an inch; but, in the afternoon of this day, it was found more closed: and next day it was *completement contracté*.

The patient complained much of a severe pain in the right groin. Regarding the symptoms as attributable to a rheumatic affection of the uterus, the physician ordered a diaphoretic mixture composed of infusion of calamus and valerian, and of the anodyne liquor of Hoffman: by the use of this, the uterine pains gradually subsided, and at length quite ceased.

Regular labour came on in six weeks after this period, and the woman did perfectly well. (v. Carus, diss. de Uteri Rheumatismo, Leipsig, 1841.)

Case 3. A woman, in the sixth month of her first pregnancy, was attacked, in consequence of exposure to cold and wet, with rheumatic fever: the pains were especially severe in the pubic and sacral regions, and the abdomen was very tender on pressure. Warm fomentations were applied to the stomach, and small doses of acetate of ammonia in chamomile tea were administered frequently. By the use of these means, the symptoms gradually subsided. At the regular period, labour came on; but it would seem that it must have been tedious and difficult, as *Siebold* was obliged to deliver his patient by means of the forceps. The pains had been unusually severe, and yet very ineffective. Ten days afterwards, she was seized with rheumatism of the left shoulder, and with a partial recurrence of the pains in the abd. men. By the employment of antispasmodic diaphoretics, these symptoms were quickly relieved. *Siebold*, in a minute report of this case, has distinctly stated his conviction that the difficulty of the labour was altogether attributable to the irregular and abnormal character of the uterine contractions, induced by rheumatism affecting the womb.—*L'Experience.*

Remark.—The cases do not seem to us quite so satisfactory examples of the alleged complaint as they might have been; but there is certainly no good reason to doubt that rheumatism may affect the uterus, as it is well known to do every other muscular organ.—(*Rev.*)

SPIRIT OF THE BRITISH AND AMERICAN PERIODICALS.

SEVERE SYMPTOMS FROM THE BITE OF A SPIDER ON THE GLANS PENIS.

This case is related in the American Journal of the Medical Sciences,* by Dr. Hulse, of the United States Navy.

Case.—Mr. Q. of Pensacola, of short stature, dark complexion, and muscular frame, on the 7th of August, 1838, "while in the privy, perceived himself to be stung by a spider on the glans penis. The pain, which was not great at the moment, continued to increase till 1 P. M. an hour after the accident, when it had become extreme, and I was called to see the patient. I found him lying upon a cot, and writhing under the most acute suffering. The place where the sting was made, showed no marks of irritation nor swelling. I however applied to it a strong solution of carbonat. potass, which I happened to have about me, and ran to the apothecary's for medicine. My absence lasted but a few minutes, and on my return, I found him vomiting with great violence, and complaining of deep-seated pain in the abdomen, extending up into the chest, and of sensations of choking and suffocation. The vessels of the neck and face were greatly distended, and of a dark hue. I opened a vein in the arm and let blood copiously through a large orifice, and commenced immediately to give aqua ammoniæ and laudanum in doses of a teaspoonful of each every ten minutes, which were ejected as often from the stomach—pains and spasms along the spine and extremities now came on, and the agony and anxiety were, if possible, increased. Strong volatile liniment, tinct. cantharides, and spirits terebinth. were alternately applied to every part of the body by the patient's numerous friends who had assembled round him, and common injections were administered as frequently as they conveniently could be, with a view to open the bowels. The ammonia and laudanum were assiduously plied, and occasionally some tinct. camphoræ, likewise; at the suggestion of Dr. Edwards of the navy, who was called in, the oleum olivarum was freely administered. At 3 P. M. the paroxysms of pain came on at longer intervals, and the vomiting was less urgent, but the intensity of the pain when present, was undiminished. The principal medicines relied on, viz. the ammonia and laudanum, were continued every half hour, and at about five o'clock, after the exhibition of fifteen injections, fæcal evacuations were obtained from the bowels. The patient became much easier in the course of the evening, and was able to retain a dose of castor oil, which purged him freely; but the pain in the legs continued through the night, which he passed without sleep.

On the subsequent day, sinapisms were applied to the legs without effect, and the evening brought little or no mitigation of the pain. Veins were now opened in both feet, which were placed in warm water, and the blood was allowed to flow till an impression was made on the pulse. In an hour after the bleeding, the patient enjoyed perfect ease; he slept well that night, and on the following day was able to walk about the house. He recovered in health very speedily."

"I saw," adds Dr. Hulse, "several spiders in the place where he received the sting. They were of large size, of a dark brown colour, covered with hairs over the legs and body."

*May, 1839.

In this case four ounces of laudanum and an equal quantity of aqua ammoniæ were administered in the space of four hours.

REMARKABLE CASE OF PARTIAL SWEATING.*

Dr. Samuel Marcy relates this case in our Contemporary.

Case.—John Fallopius, ætat. 45, of sanguine temperament and of strictly temperate habits, has never suffered a day's sickness, with the exception of the ague and fever, and is in every respect a healthy, athletic man. From the year 1823 to 1830, he was attacked with every variety of ague and fever, from the slightest chill perceptible, to the most violent ague possible, embracing the tertian, quartan, quotidian, and double quotidian type; and much of the time accompanied with excessive night sweats, equal to a Thompsonian sweat. Now, and for the last six years, he has been free from that or any other disease, but subject to profuse perspiration on taking much exercise, perspiration greatly disproportionate to the exercise or labour; while in a recumbent posture, the perspiration is confined to the upper part of the body and extremities; the opposite, or under side perfectly void of any moisture; temperature natural; change his position to the opposite side, and in a short time perspiration subsides on the side he is laying upon, and commences upon the upper side again, and so on as often as he chooses to change his position. A line of perspiration would be correctly marked by a line drawn from the centre of the frontal bone to the pubes, including the extremities. The patient has often amused himself and friends, by noticing his one-sided sweating propensity on changing his position from side to side. While in an erect position, the perspiration was uniformly diffused over the whole surface. During the past extremely warm Summer, his eccentric perspirability continues even in the erect position, and he continues to amuse his friends by exhibiting one side of the face covered with pearly drops of perspiration, while the opposite side is entirely free from any moisture. Since it showed itself in the erect position, it is confined to the left side exclusively, and so continues.

CHRONIC CEREBRAL AFFECTION. By DR. BARTLETT.

In our esteemed contemporary (American Journal of the Medical Sciences) Dr. Bartlett has published an interesting case (as far as it goes) of the above, and of which we shall give some particulars in this place.

Case.—A young female, aged 15 years, enjoyed good health up to the age of 13 years, when she first menstruated, and then began to complain of head-ache, and pain in the back and limbs. The latter disappeared, but the former continued. The pain gradually became more severe during the last year, and was at last constant—shooting from forehead to occiput—never changing its seat. There was slight intoleration lucis et soni—vision not much affected—sometimes singing in the ears—occasional epistaxis—and for some weeks previous to April 10, 1838, she experienced some numbness in the hands and feet, coming and going several times in the twenty-four hours. No aberration of mind; but some deterioration of the memory—appetite puny—no emaciation

---

*American Journal of Medical Sciences, May, 1839.

—bowels regular, and secretions healthy—no flatulence, acidity, or nausea—tongue moderately coated—constant thirst, with sense of chilliness—hands and feet cold—face flushed—pulse from 76 to 100, but neither full nor hard—urine natural. The sleep is turbulent and unrefreshing—she being ever conscious in her dreams of the head-ache. Medical treatment never relieved this symptom, but often aggravated it. During the first year and a half Dr. B. considered the complaint as nervous, and devoid of structural change. But latterly he altered his opinion, and suspected tubercles on the brain or cerebellum. We shall not follow the over-minute details of this case; but may remark, that towards the middle of June, the patient began to exhibit occasional aberrations of mind resembling the conditions that attracted so much notice in the celebrated O'Key's here. These "crazy fits" alternated with fits of mental sanity and tranquility. We suspect that Dr B. is a little credulous—and, at all events, we think he might as well have kept the case till death or recovery took place. He breaks off abruptly in the month of February of the present year, when the patient was "slowly improving."

Diseases of the encephalon are, of all others, the most obscure, as might reasonably be expected from the nature of the organ itself, and its enclosure in a bony case. At the time we were looking over the above case, Mr. Alcock and ourselves had an opportunity of examining a fine boy, of eight years of age, who had complained for several months of severe pain in his head, with dilated pupils, but no paralysis. For a month before his death his great complaint was a most distressing sense of "tiredness." This was more difficult to bear than head-ache—though that was bad enough. He pined and died without exhibiting any marked symptom of specific structural disease.

On dissection, we found the vessels of the brain congested, with some recent coagulable lymph thrown out between the meninges. There was nearly an ounce of fluid in each of the lateral ventricles. The grand lesion, however, and which must have been of long standing, consisted of seversal white and hard tubercles in the cerebellum, one of which adhered to, and pressed upon, the corpus olivare of one side.

Dr. Lendrick on Incontinence of Urine.*

Incontinence of urine is so troublesome a *symptom*, that every attempt to fix its causes, discriminate its varieties, and improve its treatment, ought to be received with favour. Dr. Lendrick makes this attempt.

Dr. L. observes that incontinence of urine generally depends more or less on three conditions.

First, he says, in frequency and generally in date, may be mentioned an irritation of the parts about the neck of the bladder, to which the incontinence attendant on calculus, disease of the prostate gland, fungus, &c. may be attributed, but which may also exist independently of such causes as a primary affection. Sometimes the irritation is confined to the part of the bladder immediately behind the prostate gland, where the gland by its projection within the cavity of the viscus forms a pouch; and in these cases incontinence of urine is often the only symptom that attracts notice. In other instances the prostatic urethra partakes of the irritation, and the patient presents symptoms common to other diseases, among the rest irritability of the seminal vessels (after puberty) and frequent discharges of their contents. The involuntary evacuation of the urine and semen during sleep, seem indeed to be dependent on the same cause, and referrible to whatever produces irritation in the remote part of the urethra.

---

* Dublin Journal, Sept. 1839.

Thus both are attendant on the morbid state of this portion of the passage, so well described by Mr. Abernethy.

We would observe, that there can be no question of the trigone being the most sensitive part of the bladder. It is probable, for we know of no certain proof, that in most cases of "irritable bladder," the irritability is seated in this part. But we doubt whether, in many of the cases of nocturnal seminal emission, the blame lies really here. The testes and vesiculæ are loaded with semen, and the emission is the consequence of their repletion. Such emissions cease when regular sexual connexion is obtained.

The *second* cause, continues Dr. Lendrick, or rather aggravator of incontinence of urine, depends on the *habit* which the parts acquire of discharging the contents of the bladder when the control of the will is removed, as during sleep; and in many cases of powerfully exciting the inclination during the day on the accumulation of the smallest portion of the usual stimulus; thus causing diseases designated by the terms "irritable bladder," or "irritable urethra," but which are in general confined to the part where the viscus unites with the canal. We often find that, in the day time, the patient is perfectly free from annoyance and able to retain his urine, a circumstance that proves the frequent independence of the disease of any paralytic affection. Its spasmodic nature is proved by the influence of an opiate at night in preventing the occurrence, and by the fact that where a ligature * is applied so as to compress the penis, the patient often seems to those appointed to watch him to suffer great agony during sleep, while the portion of the passage beyond the ligature is found to be distended by the urine forcibly driven against the obstacle.

It seems difficult to separate the "habit of involuntarily discharging" the urine or the semen, from an irritation about the neck of the bladder. In fact, such a habit appears, on examination, to be neither more nor less than the incontinence itself. That habit must have a cause, because habit implies no more than the mere repetition of actions, which are themselves effects. No doubt incontinence, like other affections, is kept up by "habit," but that only means that having lasted long, it is more difficult of cure. The habit in question is not an entity, but depends on irritation about the neck of the bladder, or on something else.

Thirdly, (we return to Dr. Lendrick) a more or less paralytic state of the neck of the bladder, which is sometimes the cause, is also occasionally the consequence of continued incontinence of urine. Thus incontinence and retention often alternate, especially in females.

We turn to the treatment of the disorder:—

"These three causes, or aggravators of incontinence of urine—local irritation, the habit of involuntary evacuation, and debility, must be attentively considered, and the proportionate share of each in the disease duly estimated, before any attempt to treat it on scientific principles can be adopted. In general the above is the order in which these causes arise, and in protracted cases they are usually all developed. Thus Sir C. Bell's plan of causing the patient to lie *off* the back during sleep, is well adapted to effect a cure in recent cases, and as accessary thereto in others. It ought therefore be had recourse to in every instance. Children can be easily subjected to the requisite restraint by a proper arrangement of the bed-apparatus; and adults are so anxious to get rid of the infirmity, that they willingly lend their aid by keeping themselves in the proper posture.

Where evidence is afforded of irritation and tenderness about the prostate gland leeches may be applied there by means of Dr. Osborne's apparatus, or of a small

---

* This practice has been adopted by army surgeons in order to distinguish feigned from real enuresis.

and smooth gorget. Suppositories of opium, hemlock, and hyoscyamus may also be used. The urine must be kept as far as possible in a neutral state, not only by the use of acids or alkalies, according to the results of chemical testing, but also by avoiding whatever articles of food are found by experience to give the fluid a tendency either way. In no class of diseases is it more important than in those of the urinary organs to attend to idiosyncracy, to arrange the habits accordingly, and to regulate the state of the bowels.

Bark, steel, cold bathing, &c. are frequently had recourse to in *enuresis*, and usually with but little effect; as indeed might be inferred from the rarity of its connexion with debility, except in advanced cases. Stimulants have been attended by more fortunate results, and have thus led to an erroneous view of the nature of the malady."

"In this way cubebs, buchu, &c. probably act. The best medicine of the kind is, however, the uvæ ursi. The patient may take half a pint of the decoction daily, and before each dose two pills formed of the resin of copaiba. Where the disease is of long continuance, and attended by difficulty of retaining the urine during the day, the twelfth of a grain of extract of nux vomica may be added to each pill, and increased gradually to three times the quantity, if no unpleasant symptoms should be produced by its use. The principal efficacy of blisters to the loins and sacrum is probably attributable to the absorption of the cantharides, and the specific action on the urethra. Thus the tincture of lytta, taken internally, forms an excellent substitute for the copaiba pills, when the latter begin to lose their effect, especially in those cases where the seminal vessels partake of the irritation. The patient may commence with half a drachm daily, and increase by one half, till slight ardor urinæ is produced, when the doses ought to be diminished.

Desault treated cases of this kind by means of a bougie, or even by retaining a flexible catheter in the bladder. The practice was nearly similar to that of Mr. Abernethy, although the principle was somewhat different. I have frequently observed much advantage to ensue from the urine being retained some time before going to bed, and being then carefully drawn off by the catheter."

In obstinate enuresis Dr. Lendrick turns to injection of the bladder, and he praises it with liberality. Yet he admits that it should be tentative.

"The water ought to be injected through the catheter in its *flexible* state, whether introduced with or without the stylet. An inflexible instrument conveys every motion of the apparatus, or of the operator's hand to the urethra, and thus proves a source of irritation. The double-barrelled silver catheter is indeed better adapted to washing out a dead bladder than a living one. A stop-cock should be attached to the flexible catheter after introduction, to which the injecting syringe is to be fitted so as to slide off and on, either for the purpose of allowing the fluid to escape, or for that of injecting a further quantity of water. A syringe capable of holding about five ounces is very manageable; but the small syringes, used as stomach pumps, produce too much irritation by their jerking movement, and a plain syringe of the size I have mentioned is the best. The piston ought to slide smoothly, and be moveable by the finger and thumb. Of course the syringe ought to be perfectly clean, so as to avoid the risk of introducing a foreign body. An elastic gum bottle can scarcely be rendered sufficiently clean for the purpose.

It is not necessary that the water should be distilled. It ought, however, to be previously boiled, and poured carefully from the sediment. On the principle that has already been mentioned, the water ought to be blood warm at first, and, as irritation diminishes, its temperature should be lowered gradually to that of the atmosphere. The patient can seldom bear the injection of more than four or six ounces at first, and even this quantity must be thrown in slowly, the operator checking his hand the instant the patient complains of any uneasiness, or

that the slightest impediment is felt. If the piston be pressed further under these circumstances, and before the resistance has had time to subside, the bladder is excited to spasmodic action, and the fluid must be allowed to escape. If the patient can retain the fluid without inconvenience, it may be allowed to remain, and be discharged at his leisure in the ordinary way—if it cause any uneasiness, a part, or even the whole, must be allowed to run off by the tube. No general rule can be laid down as to either the temperature or quantity of fluid or the time it should be retained, further than that the quantity ought never to exceed a pint, and that every thing should be regulated by the consideration of not causing pain to the patient. If pain be produced the operation will do more harm than good. A similar rule applies as to the frequency of injection, which may vary from once per week to once daily. When the patient has become habituated to the operation, it is a very good plan to cause him to retain the urine in the evening as long as he can, then to draw it off and inject water; and finally to draw off water by the catheter at bed-time."

We have presented the main features of Dr. Lendrick's paper, and we think the subject merits every attention. In the incontinence of urine of children, not depending on any thing obviously wrong in the urinary or digestive organs, we have seen more benefit from the tincture of lytta than from any other remedy. We have cured with this remedy some very old and unpromising cases. In the frequent micturition dependent upon "irritable bladder," or connected with it, attention to the digestive organs, the diminution of acidity in the urine if it exists, or of alkalescence if *it* exists, the buchu with henbane or with opium and suppositories of belladonna, and the gentle employment, in some cases, of the bougie, have been in our hands the most useful remedies. In all cases the primary object must be to discover the cause, and, if removable, to remove it.

OBSERVATIONS ON OCCLUSION OF THE VAGINA AND UTERUS. By EVORY KENNEDY, M.D. Master of the Lying-in Hospital, Dublin.*

This is a very good paper by a very good accoucheur. Dr. Kennedy treats his subject under the heads of partial and complete occlusion of the vagina; occlusion of the uterus; occlusion complicated with openings into the bladder and rectum.

Adviseability of dividing occluding Bands in the Vagina.—"There is, in my museum, a preparation strongly illustrative of the necessity of dividing these bands when they offer any obstacle to the progress of the child's head; a plan of practice questioned by some of our midwifery authorities. In this case a falciform band spread round the posterior and lateral part of the vagina. The woman had been in violent labour, and the head resting upon the band for some time without advance: satisfied of its nature, and the necessity that existed for dividing it, I delayed operating for a moment, to afford my assistant an opportunity of examining. In this interval, the pains continuing with great violence, the uterus became suddenly lacerated, and a triangular flap of the os and neck of this body was thrown down into the vagina.

In a case in which two such bands had formed, seen with Dr. Labatt and Dr. J. Labatt, some years since, one band was divided, and whilst awaiting in expectation of the other yielding to the uterine efforts, the whole recto-vaginal septum gave way, and the rectum and vagina were thrown into one cavity, the rectal sphincter, however, remaining uninjured."

---

* Dublin Journal, Sept. 1839.

Means of preventing Occlusion of the Vagina.—In the great majority of cases, says Dr. Kennedy, this disease might, with very little attention and management, be prevented; the midwifery practitioner should anticipate its occurrence in every case in which there has been tedious or difficult labour, laceration of the perineum, vagina, or uterus, or where instruments have been had recourse to, and symptoms of inflammation or sloughing of the vagina evince themselves after delivery, and even in cases of operation in the vagina, unconnected with labour, as Polipus, &c. The result of the case of the latter kind already alluded to, shews that it should be guarded against. The duty of attending to the state of the vagina after delivery, and under the circumstances alluded to, is but too frequently entrusted to the attending, perhaps ignorant, nursetender, and hence arises the train of miseries alluded to. The practitioners in all such cases, after the immediate irritation has subsided, and the slough separated, should direct, in addition to frequent injections, the daily introduction into the vagina of some resisting cylindrical substance; a mould tallow or wax candle rounded at the point, and immersed for a moment in tepid water, answers the purpose very well: and when the parts are inclined to cicatrize and contract, this should be cut to fit the vagina, and left constantly within it, even this however, the practitioner should not entrust entirely to the nurse-tender, but occasionally explore the vagina to satisfy himself it is pervious, and that the os uteri can be distinctly felt. If bands or contractions form, he should divide them early with a bistoury, before they encroach much upon the canal, and retain the dilating plug constantly within the vagina; by this simple process he will prevent the occurrence of these adhesions.

We are not always to wait for Menstural Accumulation above the Occlusion.—When, either from neglect of precautions, or their inefficiency, occlusion of the vagina has occurred, Dr. Kennedy rather questions the propriety of advice commonly given. The direction, he observes, of practical authorities is to await the accumulation of this fluid, in any operation we undertake. as it facilitates the operation and renders it more safe. This is to a certain extent a useful hint, as far as it deters practitioners from rash and unnecessary interference, but it is *wrong* to allow this consideration to influence us by inducing us to *withhold relief from all patients, in whom no accumulation occurs*, no matter to what extent they may suffer in consequence of obstructed vagina. It is a mistaken idea, but one in general acceptation, that the inconveniences resulting from obstruction in the vaginal passage, are productive of suffering to the patient *merely* by the *mentruous secretion accumulating* above the point of obstruction, and that hence arise the lumbar and pelvic pains, abdominal spasms, nausea, vomiting, &c. *Whereas the fact is, that this train of symptoms will occur at the return of the menstrual period, without the slightest accumulation or secretion taking place.*

Mode of performing the Operation for Occlusion.—When the operation has been determined on, Dr. Kennedy advises the operator to be provided with several spatulæ of different breadth and thickness, either of wood or ivory, as well as with knives of different forms, at least two well rounded scalpels, with handles seven or eight inches long, a double-edged scalpel, a blunt-point bistoury, muffled to within half an inch of its point, two or three brass tractors to separate the vulva, and a sponge, fastened to a stick about seven inches long. The patient is now to be placed in the usual position for lithotomy on the edge of a bed or table; the bladder and rectum having been emptied, the forefinger of the left hand is to be introduced into the rectum, and a careful dissection made from side to side, in the line of the vagina, through the coherent walling; the finger in the rectum indicating the correctness of the line in which we cut; and if a doubt exist in our minds, as to the course we should pursue, always directing the knife more towards the rectum than the bladder, as a wound in it is

productive of less inconvenience. Having cut in this manner as far in as is safe, carefully withdrawing the knife, and inserting one finger to ascertain the situation between each incision, when the incision becomes deeper, we introduce a narrow spatula and cut carefully upon it, with the knife parallel to the blade, widening it from side to side as we proceed. Much may also be done by separating the cellular tissue connecting the walls, by the finger or spatula as a dilator, gaining a central separation, and afterwards cutting it larger from side to side with the scalpel. Where the textures are too dense for this, then the double edged scalpel may be used for the same purpose, and the sides enlarged with the ordinary scalpel or bistoury: we shall find the latter instrument particularly useful where bands of the cellular tissue, more resisting in their nature, remain laterally, and which ought to be carefully divided by it. By persisting in this manner, cautiously and carefully dissecting the structures, we at length, get up to the uterus, the lips of which we now detect bounding the cavity above; if menstruous fluid be accumulated above, we are satisfied of the operation being completed by its escape, which in its dark and grumous character contrasts with the blood escaping from the vessels; where this is not the case, we must carefully pass a round or metallic catheter into the os uteri, if this be pervious, and if not we must either proceed to render it so, or await for some days the further dilatation of the vagina, before taking this step."

We have picked out the principal, but not all the hints that may be of service to our readers. Dr. Kennedy is zealously alive to the promotion of obstetric medicine.

OBSERVATIONS ON THE TREATMENT OF DELIRIUM TREMENS, WITHOUT OPIUM.*

What a see-saw we have, in medicine, both of hypotheses and facts. It was only yesterday, we may almost say, when observations and facts came pouring upon us to demonstrate that opium was *the* remedy for delirium tremens. Here is a paper of Dr. Cahill's the gist of which is to prove that opium in this disease is dangerous.

He relates the particulars of seven cases. The summary, a brief one, furnished by himself, will explain their nature sufficiently.

"In the first case above mentioned, that of J. T., opium gave rise to very alarming symptoms, and the patient was afterwards cured without it, not only in that particular instance, but in two subsequent attacks. I take no merit to myself for having anticipated the salutary effects of the soup in that case; I merely gave it for the purpose of supporting strength, and the sleep brought on by it was totally unlooked for and unexpected by me. Subsequent experience proved that when the more violent symptoms had been abated and the complications removed, the stimulus of nourishment *alone* was sufficient to allay nervous excitement; and although a little more time might be necessary, the safety of the practice, and entire exemption of the patient from any visceral affection, such as generally follows the exhibition of any large doses of opium, more than compensated for the additional time and trouble.

In the second case opium certainly did induce sleep, but not until pushed very far, after having given rise to some very alarming symptoms, and caused a return of the gastritis: moreover a relapse occurred within thirty-six hours after its use, and what bears more directly on the point, the same individual has since

---

* Dublin Journal, July, 1839.

very suddenly died in an attack of this disease treated with opium, having all the symptoms (as far as I could judge from report) of an acute gastritis.

In the third case opium caused such increase of violence, that a strait-waistcoat was considered necessary by his medical attendant.

In the fourth case I tried opium, not only without any good effect having resulted, but on the contrary the gastritic affection was aggravated, the excitement increased; and the disease was effectually cured by the cold dash to the head, exercise in the open air, and the stimulus of food. The same person had a return of the complaint, which yielded to the same line of treatment.

In the fifth case, there being no complication, I tried the opium *after a purgative*, with most *decided* benefit; but it was the most favourable case for that practice I ever saw, the constitution good, the habit of body spare, and all the organs untouched by any previous disease; besides the character of the individual, and of course his livelihood, were at stake.

The sixth case (M'C.) was, in my opinion, complicated with congestion of the brain or its membranes, and the opium treatment, I need not say, would have been highly injurious in it.

The seventh case (P. Q.) was an instance of the greatest amount of visceral disease I ever witnessed. The stomach, liver, the small and large intestines, were all engaged. The individual had more the appearance of an old East Indian than an inhabitant of our climate; he was moreover subject to pain in the head, accompanied with vertigo and stupor. I need scarcely remark that in such a case opium would have been more than hazardous.

From the foregoing statements, it will be seen that opium is not beneficial in many cases; in others that it is positively injurious; and that in all a cure can be effected without its assistance. I myself knew four very sudden and unexpected deaths to have occurred in delirium tremens, treated with opium, in a small country town, within a short period of time, and in individuals in the very prime of life."

We must say that we believe opium and stimulants to be abused in the treatment of delirium tremens. Many of the cases of that disease are complicated with congestion of the brain or its membranes, and often, we are confident, vascular excitement is mistaken for it. Still we cannot shut our eyes to the fact that opium is a very valuable remedy for the disorder, and we only say what the experience of most medical men will confirm, when we assert that we have seen it of the greatest service.

Dr. Cahill adds:—

"I must remark that I look upon personal restraint as a most injudicious practice, and one that should never be had recourse to, *under any circumstances*. I have seen immediate death occur in one instance, and in many others the violence and excitement increase a hundredfold. The persons in charge of the patient should be strangers; as he will submit to such without murmur, while no violence will induce him to do so to a friend or acquaintance. The douche or cold dash to the head, and walking about a cold room, (the cold air bath of Franklin,) have the most beneficial effects in lowering violence and excitement, and restoring comparative calmness and reason. The douche should be applied by pouring a continuous stream of water from a height of four or five feet on the patient's head, who should be placed on his knees over a tub or other vessel to receive the water. I have frequently seen the most violent excitement subdued, for a time, by it, and the individual return to bed quite cool and rational. There seems also to be a complete exemption from the effects of cold in this disease, as I never knew any bad effects to have arisen from exposure to cold air or wet, even during very heavy perspirations, in persons who at other times were highly susceptible of bronchitic attacks from slight changes of temperature. In cases of *habitual drunkards*, it is necessary to give their accustomed stimulus,

to prevent sinking; but this may be pushed too far, and then the same results will follow as from *excessive* doses of opium."

While we confess that there is some truth in Dr. Cahill's observations on the abuse of stimulants as well as of opium, still we think that he carries his dread of both too far. With care and prudence each may be employed with marked advantage in the treatment of delirium tremens.

DECOMPOSITION OF IODIC ACID BY URIC ACID AND BY ALBUMEN.

Dr. Davidson has communicated some experiments on this subject to the Medical Gazette.*

Iodic acid has been recommended as a delicate test for morphia, which combines with its oxygen and sets the iodine free. But its value as such a test is materially depreciated by the observations of Dr. Davidson. He remarks:—

"When making some experiments on the urine of a patient, several months ago, I observed that the addition of iodic acid to it, disengaged the odour of iodine, and that the fluid assumed a blue colour on the addition of gelatinous starch. This result led me to inquire, what constituent of the urine had this property; and on trying urea and uric acid, I found that the latter only possessed it; and that it might be indicated in the urine of diseased, as well as in that of healthy individuals. I next tried the effects of iodic acid on the serum of the blood, and found that a similar result was obtained, but more slowly, and the colour was less deep, than in the case of healthy urine."

After detailing the experiments, he adds, that every albuminous fluid he has tried has produced the same results, varying in the intensity and beauty of the colour; viz. serum from the brain of a typhus patient, the fluid evacuated from the peritoneum of a person who was tapped for ascites, hæmatosin carefully freed from serum and dissolved in a considerable quantity of water, and the serum of cow's milk. The serum of blood, even when diluted with 4 or 5 parts of water, produces, with iodic acid and starch, nearly the same purple colour, but more beautiful, as when employed in the undiluted state. It would appear from these results, that iodic acid is capable of being decomposed by substances which exist to a large extent as constituents of our food, or as component parts of the fluids and solids of the animal bodies; and that one of the secreted fluids, viz. urine, contains, as an ordinary constituent, an element capable of effecting the same change upon it. Hence, in analyzing the contents of the stomach, in a case of poisoning with morphia or opium, the certainty of encountering albumen, and the possibility of meeting with uric acid, would render the separation of the morphia from these two substances so difficult and complicated, that no precise conclusions could be drawn from the indications of iodic acid as a re-agent.

PREVENTION OF PITTING IN SMALL POX.†

Our contemporary informs us that, at a late sitting of the Royal Academy of Paris, a letter was read from M. Legrand on the result of an experiment which he had made on the effect of gold-leaf in the pustules of small-pox. M. Larrey had said last year that the Egyptians and Arabs preserved the faces of their rich young persons from the destructive effects of small-pox by covering them with gold-leaf directly upon the invasion of the disease. M. Legrand says, that he

---

* Aug. 17, 1839. † Med. Gaz. Aug. 31, 1839.

applied this method with the greatest success in a young English girl who had confluent small-pox. From the first instant of the eruption to the termination of the suppurative fever, he had covered the whole face morning and evening with fine gold-leaf, such as is used in gilding *à froid*, which he made to adhere by means of a little gum-water. With the exception of a few places at the sides where the gilding was removed by the friction of the pillow, the face, though it had been greatly swollen, was perfectly preserved, and the features retained their beauty. The hands, which had not been subjected to the same treatment, presented some characteristic cicatrices.

Whoever believes that *any* application will prevent pitting in severe cases of confluent small-pox, must possess a larger faith than we have.

DIVISION OF CERTAIN MUSCLES FOR LATERAL CURVATURE OF THE SPINE.

M. Jules Guerin announces that he has already practised twelve times successfully on subjects affected with this deformity—an operation which consists in the division of certain muscles of the back and vertebral column.

The muscles which he has hitherto divided are—the trapezius, the rhomboideus, the levator anguli scapulæ, the sacro lumbalis, the longissimus dorsi, and the semi-spinales.

I have long established, he says, that the greater number of articular deformities are the result of convulsive muscular contraction, dependent on an affection of the brain or spinal cord, or of the nerves themselves which are distributed to the muscles. This opinion naturally led me to the two following results for the diagnosis and treatment of these deformities, viz.—1st. That the various forms which each of these varieties is capable of assuming are the products of this contraction, differently distributed in different muscles; and 2d. That the active treatment of each of them must consist in the division of the tendons or the muscles, to whose contractions the special form of each is subordinate.*

It would be presumptuous in any man, now-a-days, to say what remedial measure will or will not answer. But certainly à priori reasoning would not lead us to anticipate much benefit from this operation of M. Jules Guerin's. The basis on which it is set appears to us to be unsound—*that* lateral curvature of the spine depends on an affection of the brain, or spinal cord, or nerves. That seems to us to be a most gratuitous assumption, and any operation founded on it, wants theoretical consistency at all events.

DR. CORRIGAN AND THE LONDON COMMITTEE ON THE MECHANISM OF THE BRUIT DE SOUFFLET.

Dr. Corrigan had contended that the essential cause of the bruit de soufflet in tubes, is diminished tension of their parietes, and a current-like motion of the fluid contained in them. An obstruction (not complete) on any part of the tube, would produce these conditions (under ordinary circumstances) in the portion of the tube beyond the obstruction.

But the London Committee look on the obstruction itself as the essential cause of the bruit. The question is still in abeyance, and Dr. Corrigan has published, in our contemporary of Dublin, an ingenious answer to the experi-

---

* Med. Gaz. Aug. 10, 1839.

ments and observations of the London Committee. To the paper itself we must refer for particulars, and content ourselves with the Doctor's summary of matters.

"The question at issue between us is now, as I have already observed, within a narrow circle. The experiments and observations are admitted on both sides. Their conclusion is, that a certain resistance or impediment to a liquid current, is the essential physical cause of all murmurs produced by the motion of fluids in elastic tubes. That any condition of the walls of the tube beyond the obstructing point is not, as it has been supposed, essential to the production of these sounds, &c.'

My conclusions are, that the conditions necessary to the production of sound are—

'1st. A current-like motion of the blood (instead of its natural equable movement,) tending to produce corresponding vibrations in the sides of the cavities, or arteries through which it is moving; and

2ndly. A diminished tension of the parietes of the arteries, or cavities themselves, in consequence of which, these parietes are easily thrown into vibration by the irregular current of the contained fluid; which vibrations cause on the sense of touch 'fremissement,' and on the sense of hearing, 'bruit de soufflet.' "*

OBSTRUCTION OF THE BOWELS FROM MALPOSITION OF THE COLON.†

Dr. Buchanan relates, in two numbers of our contemporary, the Medical Gazette, three cases of fatal constipation, dependent, apparently, on an abnormal position of the sigmoid flexure of the colon. The cases are not devoid of interest, but we waive their consideration, to make room for the recommendations of Dr. Buchanan in the future management of similar ones.

From the account, he says, which he has given, it must be obvious that, in treating it, all purgative medicines are useless, as well as all clysters administered in the ordinary way, so soon as the rectum has been emptied of fæces. The first and great object of our treatment should be to remove, if possible, the mechanical obstacle to the evacuation of the bowels. To facilitate this object the patient should be placed upon his hands and knees, or standing, with his body inclined forward, which has the effect of freeing the end of the colon from the weight of the first turn of the sigma lying over it. An instrument should now be introduced into the intestine, for the purpose of dilating the compressed portion. The instrument which appears to me best adapted for this purpose is the œsophagus tube, armed with a large sponge at the end. The sponge is easily fastened by means of a string attached to it, and passing through the tube; while, by means of the other half of the string running outside the tube, the sponge can be withdrawn when we wish to use the tube as an injecting instrument. In the first instance, however, we are to use it as a probe and dilator. After carrying it up as high as we may deem necessary, it is to be withdrawn, when, by examining whether or not the sponge be smeared with fæces, we can ascertain whether or not it has passed the compressed portion of the intestine. If it have passed, we should re-introduce it, and by passing and repassing it up and down through the compressed part, we should endeavour if possible to form a free passage, by making an indentation in the soft feculent sac lying, in the position of the body here supposed, below it. Very probably we may succeed in this way in procuring a discharge of fæces, which, without

---

* Dublin Journal, November, 1838. † Med. Gaz. August 3, 1839.

any contraction of the muscular fibres, would be protruded along the passage by the elastic force of the condensed air in the surrounding intestines. If we do not succeed, the tube must be again carried up as far as possible, and the sponge withdrawn, when we must inject tepid water or air, as may be found best to answer the purpose.

Dr. Buchanan goes on to say, rather boldly :—

"Suppose that we do not succeed in procuring any evacuation by these means, or that we succeed only partially, so that the tension remaining undiminished, it is still obvious that death must ensue, is the patient to be abandoned to his fate, or are there still other means of relief in our power? I answer without hesitation, that in the circumstances just supposed we should puncture the bowels. With what view should this operation be put into practice? Not certainly for the evacuation of fæces, which could not be prevented from escaping in part into the peritoneal cavity, and would so cause death. It should be performed, therefore, solely with the view of discharging air from the bowels, which will have the double effect of relieving the suffering of the patient, and facilitating subsequent attempts to evacuate the fæces through the natural passages. In what situation should the puncture be made? This question reduces itself to the more simple one—in what part of the colon should the puncture be made? for there is no other part of the intestine, in such cases, accessible to puncture. The whole of the sigmoid flexure, and greater part of the left colon, containing only fæces, are excluded from consideration, and the transverse colon is excluded by the uncertainty of its position. The right colon is the part of the intestine most uniform in its seat, and it is likewise distended almost entirely with air. I would therefore recommend puncturing the right colon, about the middle of its course, with a small trocar. On withdrawing the stilette, the confined air should be allowed fully to discharge itself, after which the attempts to evacuate the bowels may be renewed, probably with better success."

Sensibility of the Motor Roots of Spinal Nerves, and of the Anterior Spinal Columns.*

M. Majendie concludes from some recent experiments, that the roots of the sensitive and the motor spinal nerves are equally sensible when they are both entire. If the sensitive nerves be cut, the motor immediately lose their sensibility. If the motor nerves be cut across at the middle of their roots, the end which remains attached to the spinal cord is perfectly insensible, but the other end (next the ganglion) preserves an extreme sensibility.

M. Majendie became curious to know whether the same kind of influence does not exist between the columns of the medulla. After having again confirmed the fact that the posterior columns have an exquisite sensibility, while that of the anterior is less marked, I cut on one side the posterior roots of a pair of lumbar nerves; I then examined the anterior column at the same level, and found its sensibility very slight, if not entirely destroyed. This influence was probably transmitted by the uninjured motor roots; but to verify this idea, I cut through the middle of the motor roots, leaving the sensitive roots entire; the same loss of sensibility in the column, at the place and above the place whence the roots arose, was now observed.

After repeating these experiments several times, I am enabled to conclude that the posterior column of the medulla spinalis, the sensitive roots, the gang-

---

* Medical Gazette, Aug. 3, 1839.

lion, the spinal nerve, the motor roots, and, lastly, the anterior or motor column, form a kind of circular chain, of which each of the elements serves to transmit sensibility from the posterior cords to the anterior. Why is this transmission effected by so long a route, when it might have been effected by the simple intermedium of the sutural column? I know not; it is a new question for experiments; but the fact of the influence of one part of the central nervous system on another, is not in itself less remarkable, and may, if it is confirmed, open a new route for researches in this still obscure subject.—*Comptes-Rendus*, May 20, and June 3, 1839.

RETROSPECT OF THE PROGRESS OF SURGICAL LITERATURE, FOR THE YEAR 1838–9. By MESSRS. NEWNHAM, W. WICKHAM, AND SALTER. Read June 13, 1839, before the Annual Meeting of the Southern Branch of the Provincial Medical Association, and published at its Request.

Such Retrospects as these must be highly useful and are extremely interesting. They are a sort of casting up of our accounts at the termination of the year, and the balance-sheet exhibits our losses or gains.

The Retrospect before us is ably drawn up, as the character of the reporters would lead us to expect, and we shall run over its pages and cull some of their contents with the confident expectation that our readers will coincide with our favourable estimate of their value, and derive some profit from their perusal.

Re-vaccination.—After noticing the work and the prejudice of Professor Heim of Wirtemberg, the reporters offer their own opinions, which we must be excused for considering a little dogmatic.

"The experience of your reporters would lead them to say that it *never was complete* except in the almost solitary instance, which would confirm rather than invalidate the rule. In 150 cases of revaccination which have been noted by one of your reporters, *only one* could be said to *approximate towards* a regular vaccine vesicle; and this reporter is disposed to consider revaccination in no other light than as a test of the constitutional influence of the *former vaccination*. In the instances which have come under his notice, the *local action* has been observed much earlier than it ought to be, and in some cases *has subsided* without further mischief; in others, a vesicle has been soon formed with an *undefined, ragged border*, surrounded from *the first by an inflammatory blush*, and *always wanting the defined circular edge of the genuine vesicle; much too much local action has been produced; there has been almost always swelling of the axillary glands, which is unusual in a first vaccination, unless the lymph has been too aged; there has arisen a much higher and a much earlier state of constitutional irritation, originating and ceasing at very uncertain periods, governed by the local cause, and leaving a sore arm with protracted swelling, and a flattened, undefined crust, instead of the regular, raised, well-defined chocolate-coloured scab.* We are well aware that the statistical report (as well as other observations) of the result of revaccination of the Prussian army would seem to militate against these conclusions, but we believe that, if tried by the above tests, a very different result would be exhibited. According to the views of your reporters, it follows either that we have *no test* of *what is* a *genuine vaccine vesicle*, or that *this is not the progress of such vesicle*. If we adopt the *former* proposition, vaccination *may be abandoned;* if *the latter*, it is evident that the symptoms are the result of the *local agencies* of a *poison* introduced into the constitution, but, like other *specific agents*, capable of producing its *regular influence only once during life*. Yet, *if this be true*, the efficacy of revaccination cannot consist in *renewing its protecting influence over the constitution, but simply in forming the test referred to.* Your reporters must vehemently pro-

test against the employment of lymph taken later than the ninth day, and their experience would lead them to give the meed of *incalculable superiority to that taken on the eighth.* To the want of attention to this most important rule, many failures may doubtless be attributed; and also the probable origin of that unfortunate hypothesis which represents the necessity of *going back to the cow* for a renewal of lymph, which had become deteriorated or effete by passing through so many subjects; an *hypothesis so contrary* to *nature*, to *reason*, to *science*, and to *fact*, that we can only be surprised at its endurance. Notwithstanding the conflicting testimonies of the past year, your reporters would be disposed to believe that a genuine vaccine vesicle may be *accelerated or retarded* without impairing the security of the patient, *provided that its course be otherwise regular;* and they would also believe that the *efficacy of vaccination in protecting its recipients from the fatal consequences of small-pox casually introduced into the system, is much greater than that of previous small-pox itself, whether natural or inoculated.*"

It would be easy to take exception to these observations, both on the grounds of logic and experience.

Circular and Flap Amputations.—The reporters deprecate, and certainly with reason, the exclusive preference of either method; and they lean, we think, with justice, towards the circular rather than the flap method. The violent recommendation and vaunting performance of the latter upon all occasions, which is attributed to some surgeons, appears to us to be a lamentable instance of that mental vice which has ever contributed to the degradation and retardation of our science.

The reporters themselves prefer—the circular operation, or rather the transverse division of *the muscles*, close to the point at which the bone is to be sawed. So that this part of the operation be done as smoothly as possible, it is of little consequence *how* the flap is formed from the integuments, whether by the *circular incision*, by *single flap*, or by a *double semicular flap*, which your reporter has chosen for several years past, with much advantage to the healing of the wound. By forming two semicircular flaps of *integument*, the separation from the subjacent muscles is most easily and speedily effected during the operation, and especially so should they be adherent in consequence of previous inflammation. This mode of dividing the integuments prevents the formation of corners to the stump, the puckering of which is often very troublesome during the process of healing as well as the resulting prominences which sometimes become excessively irritable.

Platina Wire as a Means of uniting Wounds.—We find, they say, that efforts are now making to procure adhesion of stumps, as well as other incised wounds by two modes; one by the introduction of hare-lip pins and the twisted suture; and another, by the use of platina-wire inserted by the common needle. The only object of the former is to secure a close approximation of parts, without the dressings to the face of the stump; the second seems to have merits of an important kind; the platina-thread when drawn together is not to be tied but *twisted once*, which is enough to secure the lips of the wound in contact, and by this means, in case of secondary hemorrhage, the wound may be examined very readily, without the pain or loss of time attendant upon the removal of plasters, which are ordinarily applied. This we understand to be much used at Guy's Hospital, and seems particularly applicable to the amputations of the breast, the vessels of which are more apt to bleed than after operations in any other parts.

Suggestions for the Reduction of Dislocation of the Head of the Humerus.—"Your reporters must only notice a recommendation of Malgaigne, for avoiding injury to the female breast, where counter extension is required, viz., to inter-

pose the hand of the surgeon or assistant, so that the pressure of the bandage may be borne chiefly by it; and a suggestion of Vidal, which has succeeded admirably with himself, and is very simple, that is, in dislocation of the humerus, to make the patient sit upon the ground, and taking hold of his wrist, to raise the arm strongly towards the head, at the same, time, if possible, distracting his attention from the muscles, and then allowing it to drop suddenly, when the dislocation will be reduced."

We should suppose Vidal's method almost the worst of the many we possess for reducing this dislocation.

Partial Dislocation of the Upper End of the Radius?—"We take leave to allude to a partial dislocation of the upper extremity of the radius, which was first recorded in the September number of the 'Medical Gazette,' for the year 1837, by Mr. Gardner. We are desirous to refer to this accident, firstly, from the belief that it is not generally recognised or understood; and secondly, that one of the reporters has long been familiar with it, and has been in the habit, for many years, of pointing it out to his pupils. It invariably occurs in *young* children, and is occasioned mostly by servants and others suddenly pulling the child by the hand, or so lifting it from the ground. After the occurrence of the accident, the arm hangs uselessly by the side with the *hand prone*. Mr. Gardner has given a clear account of his lesion, both as to the manner in which it takes place, and the subsequent appearance of the limb; but whether he be correct in stating it to consist in the tubercle of the radius slipping over the edge of the ulna, we think doubtful. All that we have found necessary for removing the displacement is simply to rotate the radius; and if, while this is done with one hand, the thumb of the other be firmly placed on the head of the bone, a slight crepitating jar will be felt; at the same time a noise is heard similar to that noticed in the reduction of other luxations. The after-treatment consists in placing the arm in a sling for a few days, and applying a roller, kept moist with an evaporating lotion, around the elbow-joint."

We are much inclined to think the reporter mistaken in his notion of the nature of the accident which he describes. The accident itself must be familiar to all surgeons. We have always looked on it as separation of the head of the radius from the remainder of the bone at the epiphytic junction. A very little reflection must show that dislocation at so early an age is exceedingly unlikely, particularly in the case of the head of the radius embraced in it's strong orbicular ligament. But the epiphytic cartilage is very likely to give way.

Nitrate of Silver for Inflammation of the Prostate.—"A valuable treatise on inflammation of the prostate gland has been published by *Verdier*. In addition to the usual antiphlogistic treatment, he recommends the application of leeches to the recto-prostatic surface, and strongly insists upon the *necessity* of using *a full-sized catheter*, and if required, to puncture the bladder *above the pubis*. If matter forms, it should be eliminated directly; but the very acute symptoms having passed, then is to be employed his great remedy, *cauterization* to be conveyed by a *porte-caustic*, not suffering the caustic to remain long on any one part, so as to occasion its destruction, but to be passed lightly over the entire surface, in order to prevent local ulcerations, and to *modify and supersede* the morbid actions, so as to bring back the tone of the parts to a state in which they admit of restoration. Your reporters can scarcely sufficiently express the high value they entertain for the *nitrate of silver* in this and other analogous conditions."

We may be wrong, but we cannot avoid expressing our dissent both from Verdier and the reporters. We can conceive little chance of benefit, and we are sure there would be much hazard from the use of caustic in this manner.

Radical Cure of Hernia.—Pins have been passed through the hernial sac, and it has been this year recommended to puncture the lower part of the sac with a trocar and canula, and to introduce through the latter, one or more pieces of gold-beaters' skin; but your reporters are not prepared to say that this plan possesses any very marked advantage: they must, however, just call your attention (as deserving trial) to the employment of the belladonna lavement, in strangulated hernia.

It does not appear to us that the gold-beaters' skin or the belladonna lavement, more especially the former, are fit for much else than a paragraph. The belladonna relieves pain, and that hardly to the extent usually assigned to it; but as a direct sedative it is not comparable with the tobacco. If the latter has failed, so assuredly will the former; and neither the one nor the other, if at all effectual, can be free from hazard.

Removal of Skin in Cases of Bubo.—"In the treatment of bubo, compression is recommended, and apparently on just grounds; but where bubo must suppurate it should be early opened. Here occurs a valuable suggestion, the advantage of which we have seen, as well as the disadvantage arising from its omission, viz. the removal of all that portion of skin which has become weak, and has lost its vital activity, by which means much time and inconvenience will be saved to the patient."

These recommendations are old enough. The reporters express an admiration of the removal of "weak" skin, which we think misplaced. The skin *should not* be allowed to become weak—when weak, *need* not be removed—and, occasionally, the removal is highly dangerous. We once saw a patient on the point of death from sloughing of the femoral artery in consequence of this very practice, adopted by ourselves. We have good reason therefore not to be very fond of it.

Cataract and Glaucoma.—"It appears from the researches of M. Maunoir, that membranous cataract is far from being so common as is generally supposed. But by far the most interesting contribution on the subject of cataract is that by Sir David Brewster, in the 'Medical Gazette,' in which the author accounts for the phenomena of cataract, by Dutrochet's beautiful theory of endosmose. If this theory of Sir D. Brewster be correct, it will account for some observations of others, which have generally been received with a considerable degree of scepticism. The pathological condition on which glaucoma depends has recently been referred by two eminent authors, both high authorities in ophthalmic surgery, *to two different textures.* Tyrrell has described it under the head of retinitis, while Dr. Mackenzie, of Glasgow, describes a form of glaucoma under the name of lenticular glaucoma, which has its seat in the posterior portion of the crystalline lens. In cases where, as mentioned by Dr. Mackenzie, the middle and inverted image of a candle (in adopting M. Sanson's diagnosis) is intercepted, there can be no doubt that the seat of opacity must be anterior to the posterior layer of the capsule of the lens."

Mr. Jones and Mr. Morgan on Staphyloma.—Mr. Wharton Jones has published an interesting paper on staphyloma of the cornea, calculated to give more precision than has hitherto obtained respecting the pathology of that affection. The conclusions he has come to on the subject are;

First, that the iris and cornea do not unite surface to surface, and if they unite at all, it is only partially; and *that* in consequence of penetrating ulceration of the latter and prolapse of the former.

Secondly, that the tissue composing the staphyloma is not degenerated and opaque cornea, but a new tissue, of the nature of the tissue of cicatrix, developed on the anterior surface of the iris, exposed by the destruction of the cornea itself.

Upon the whole, Mr. Jones's account of staphyloma does not differ materially from that given by Mr. Morgan in his work on diseases of the eye, just issued from the press, and which, though short, may be read with advantage. These gentlemen, however, differ somewhat in the treatment they recommend; Mr. Morgan advises the removal of the entire tumor, while Mr. Jones suggests simply the extraction of the lens.

Treatment of Varices.—M. Helot gives the result of his own experience in twenty cases, in which the plan of Velpeau, of sliding a needle under the vein, and then with a twisted ligature, arresting the circulation, by bringing the opposite edges of the diseased vein into contact, until the vessel has been divided: this result is extremely favourable, but occasional relapses occur.

We suppose that to the end of time the same things will be recommended, tried, disused—and recommended, tried, disused again. And we suppose, too, that experience will be always thrown away.

Examination by the Rectum in Uterine Cases.—"We can only glance at its general value (the Treaties of Maigne) in order to engage your thoughts particularly upon a far too neglected point of practice, in the exploration of uterine malady, viz., *examination by the rectum.* True science will overcome anything like a feeling of disgust at this process, when the knowledge thus acquired may save the life of the patient, and at all events, will throw light on that treatment which may contribute to her cure. It is obvious that, in young unmarried females, this is the *only proper* method of ascertaining the state of the uterus, in many forms of acute or chronic inflammatory action; it is the *only way* by which the diagnosis of *invertio uteri* can be completed and rendered certain; and it is of *infinite importance*, occasionally, in deciding to what extent the body of the uterus has become diseased. M, Maigne has another valuable practical lesson, viz. in cases in which it is necessary to introduce the hand into the uterus, for the purpose of *separating the placenta*, to take care and pass it *between* the membranes and the uterus, not as is usually done on the inner surface of those membranes."

The examination has always, in our recollection, been practised in dubious or in difficult cases, and it is not a very pleasant proceeding, to say the least of it, in those which are neither difficult nor dubious.

"In retroversio uteri, the difficulties of introducing *two* fingers into the rectum and vagina, in order to antagonize each other, are fairly stated; and to obviate these difficulties, it is recommended to carry up a rectum-bougie well guarded by soft linen, and covered with some unctuous matter, in order to elevate the fundus, and thus leave the right hand at full liberty to operate upon the cervix in the vagina.

When inversion of the womb has happened, the first point of practice is its early return; and the signal utility of belladonna, locally applied, in diminishing the spasmodic contractions around the inverted portion are fairly and fully stated. An instructive instance of death from timidity in not removing the inverted uterus is recorded, which we hope will operate as a warning to all those who from fear of consequence to themselves would suffer the patient to die, and the grave to draw a veil of oblivion over their supineness or their selfishness.

We have already mentioned the several forms of prolapsus. In the last year a pessary of a very simple construction has been recommended by Mayor; it is made with *iron wire* so as to admit of being moulded into any required shape, and covered with oiled silk, or silk dipped in a solution of caoutchouc. Hull's utero-abdominal supporter must be also recommended in the precipitation of the womb of old persons; it is then capable of yielding that comfort which no other pessary can give. It may also be useful in cases of prolapsus, where

pessaries are inadmissible; for it should be always kept in view, that these should *not be employed* where the uterus is tender to the touch, or its vessels are loaded, nor indeed in any case, till we are quite certain that the symptoms depend on *simple displacement*, and not *on congestion* or *chronic inflammation*, and *consequent elongation of the womb*. In this place we should notice the recommendation of Malgaigne of the hourglass-shaped pessary, for the cure of *vaginal rectocele*, a form of malady not infrequent, and which is so commonly mistaken for *prolapsus vaginæ*, a most important and just distinction."

Plastic Surgery.—After noticing the operations for recto-vaginal fistula, and acknowledging their frequent failures, the reporters observe:—

"But it must be confessed that this operation has often failed, even in the most skilful hands. And therefore it has been more recently recommended by M. Jobert as a new application of plastic surgery, to take a portion of integument from one of the labia, which is to be applied to and united with the previously pared edges of the fistulous opening. In this enumeration, we must not omit to mention the *doubtful proposal* of M. Vidal to *obliterate the vagina;* but so many, so great, and so obvious evils would arise from this proceeding, that certainly it should only be had recourse to as a dernier resort.

With regard to lacerated perinæum, an accident which *may happen* even to the most cautious, it is well known that the ordinary suture often fails, and fails generally from the tearing up of adhesions during action upon the bowels. In this, and other circumstances, it has been proposed to divide the sphincter-ani. But a more agreeable, and probably a more successful plan has been suggested, in another adaptation of *plastic surgery*, viz. to take a small quadrilateral slip of integument from either side of the perinæal wound, and to unite the two by the quilled suture. It will, however, very generally happen, that by care and the judicious application of caustic, the wound will be healed without this intervention."

We fancy these operations are easily talked about and written of, and no doubt many will be done in Germany and France. But, somehow or other, they will not be found to answer very well in England. Nor will the next proposal.

Vaginal Counter-opening for Diseased Ovary.—"The diseases of the ovary have also received considerable notice. We mention, first, a proposal of M. Recamier, to obtain an effectual cure of ovarian dropsy, by establishing and opening through the cyst into the vagina; that is, by puncturing the cyst through the linea alba, introducing a gum-elastic tube till it is felt through the vagina, establishing there a counter-opening, and preventing for a time the wound from healing. This patient died, yet there were some circumstances to render a repetition of the trial not inadmissible; and it is evident that, if care be taken to have the bladder empty, it MAY be accomplished without fear; and then, if the aperture be kept from closing, it MUST BE PLACING the disease in a position favourable to its entire removal."

We commenced by expressing our hearty approbation of the diligence and talent of the reporters. That sentiment we re-echo. But it would be uncandid not to acknowledge that they evince a leaning to the crotchetty speculations of our continental brethren, which the best practical men in this country are neither disposed to approve nor imitate. We should be sorry to see English practitioners discarding that utilitarian spirit and those serviceable practical attainments which have hitherto distinguished them, for the livery of foreign fancy and extravagance. In abstract science our neighbours have the start of us, but in the treatment of disease they are far behind us. We may usefully consult them on physiology, on minute anatomy, and on morbid anatomy, but when we arrive at therapeutics, it is quite another matter.

THE PROGRESS OF MEDICINE IN AMERICA.

A new quarterly contemporary, the "New York Journal of Medicine and Surgery," has just appeared in the field. We wish our brother every success, and shall introduce him at once to our readers.

He commences operations by a Retrospect of American Medicine and Surgery, a retrospect and summary from which we may pick out a few particulars not undeserving of attention.

What American Physicians did before the Revolution.—Their labours are thus summed up:

1st. In furnishing statistical accounts of the climate and diseases prevalent in different sections of the country:

2d. In furnishing accounts of most of our vegetable productions, and in introducing some of the most useful of them into the materia medica:

3d. In recording the history of the principal epidemics, and some of the endemic diseases: as the influenza, which had prevailed extensively at different periods from the earliest settlement of the country; the small-pox, meazles, and the angina maligna of later date; the colica pictonum, which appears to have been very frequent in the southern provinces; the yellow fever; the fevers of the middle and southern states; and, finally, the croup:

4th. In the introduction of new practice: namely, inoculation for the small-pox; the liberal use of calomel in inflammatory diseases; the depleting and the depressing practice in the treatment of angina trachealis:

5th. In the publication of a useful surgical guide for the instruction of our army and navy surgeons:

6th. In the establishment of hospitals and medical colleges for the benefit of the sick poor, and the competent instruction of youth about to enter upon the duties of the profession.

Considering the state in which America was—a young country occupied in forming towns, peopling villages, and establishing commerce—the opportunities for cultivating and the means of encouraging science must have been so few as to render it surprising how it should have been cultivated at all. But the European settlers in the New World carried with them more than the spirit of their fathers.

Free-trade in Colleges does not answer in America.—"It is not our intention, on the present occasion, to enter minutely into the history of our individual institutions. Our *medical colleges*, which at the commmencement of the present century were limited to four, have since increased to nearly thirty; an increase altogether uncalled for, and the effect of which has been rather injurious than beneficial. The free trade and no monopoly principles of Adam Smith, how beneficial soever in commerce, in those branches of industry to which he himself would have applied them, or in those occupations in which men may look directly to a full return of remuneration for his enterprise or labour, have a chilling and unkindly influence upon science: they should never have been extended to our halls of learning; and least of all, to a class of institutions, which in this, as in all other countries, require protection and encouragement rather than opposition.

The facility with which charters can be obtained for medical schools in this country, and especially in this state, has had no good influence upon the profession. And the establishment of these in unknown villages, and in remote settlements scarcely yet reclaimed from the wilderness, where no infirmaries exist, and where students have no opportunities for practical instruction, serves but to diminish the usefulnesss of older and better institutions.

The efforts made by these woodland schools have another evil tendency. The inducements held out by them for individual patronage, are, diminution in the expenses and in the period of study. Their requirements for graduation are consequently not sufficiently elevated; and in this way numbers of badly educated men are thrown upon the public. In our larger cities, however, where men of experience and varied professional acquirements can be obtained as professors; and where hospitals, infirmaries, and dispensaries, are at hand for clinical instruction, our colleges have always merited the respect and confidence of the profession."

We have no doubt of the soundness of these observations. The free trade principles so applicable to monetary capital, do not foster the capital of intellect. In the first place the public are not judges of the commodity in medicine: in the next place, even were they so, the public would only purchase the practical part of it. The abstract portion must wither from the want of due encouragement, and, if that droops, the practical part must decline also.

When we turn to schools, in which the profession is the only party, we find that free trade is still injurious. If schools are multiplied, excessive competition will spring up—each school, to attract pupils, will underbid its rivals—and numbers, badly educated, or, at all events, in needy circumstances, will be invited into the profession. If all the classes of society were exposed to the same circumstances, medicine, as a profession, would not suffer. But as the other classes are not so situated, the tendency of such a system is inevitably to lower us in public estimation, and to depreciate our position. We have adverted to this question in another place.

Medical Periodicals in America.—"They have multiplied even more rapidly than our medical colleges, and with much the same effect. At present they are not so numerous as formerly, but the interests of the profession have not suffered on this score. With the addition of a well conducted medical quarterly in this city, we would have as many as are needed. And, no doubt, now that New-York is awakening to a sense of shame for having allowed her own former and well-conducted journals to be discontinued, and for supporting, to the detriment of her own citizens, a foreign review, (able enough in itself, but of no great use to the practitioners of America,) she will soon blush at the lethargy for which of late years she has been characterized on this point; and once more bestir herself to regain her former stand."

We learn from this passage one or two things:—*first*, that the *only* journal that is wanted in America, is a quarterly journal in New York; that deficiency is supplied by our contemporary, who is content that a few should drop, provided that himself is patronized—*secondly*, that American medicine is different from other medicine, an English journal being of no great use to American practitioners—*thirdly*, that American citizens receive detriment from the republication, *in* America, of a foreign review, that re-publication being effected by an American, Mr. Wood, for his own exclusive profit. We need hardly tell our readers that the "foreign review" alluded to is this. We should be very glad if our contemporary *could* persuade his countrymen *not* to re-publish our Journal. Whether the re-publication serves or does not serve American citizens, it is a sheer loss to us. We do not receive a single penny from it, and are robbed of the natural fruits of our labour, from the want of an international copyright. Were the sale in America insufficient to pay an American "citizen," we might stand some chance of being paid ourselves.

One word on the equivocal compliment to our merits volunteered by our contemporary. He says that this Journal is "able enough." though "of no great use" in New York. We are not in the habit of spending all our editorial income in the promulgation of puffs, nor in advertising our own transcendent merits. We do not quote the candid opinions of rivals of our rivals, nor the

unpaid praises of the daily press. But this we will say—that "able enough" as we may or may not be, we challenge comparison with our young contemporary, and are likely, we think, to prove *as* useful either in the Old World or the New.

What Rush's Doctrines were.—"The burthen of Rush's doctrine was to establish the unity of disease. 'I use the term diseases,' says he, 'in conformity to custom: for, properly speaking, disease is as much a unit as fever. It consists simply in morbid action or excitement in some part of the body. Its different seats and degrees should no more be multiplied into different diseases, than the numerous and different effects of heat and light upon our globe should be multiplied into a plurality of suns.' In defence of this doctrine he made bold attacks upon those of his predecessors, especially the nosologists. 'By the rejection of the artificial arrangement of diseases,' says he, 'a revolution must follow in medicine. Observation and judgment will take the place of reading and memory, and prescriptions will be conformed to existing circumstances. The road to knowledge in medicine, by this means, will likewise be shortened: so that a young man will be able to qualify himself to practise physic, at a much less expense of time and labour than formerly; as a child would learn to read and write by the help of the Roman alphabet, instead of the Chinese characters.'"

We need not be at the pains of characterising such chimeras, worthy of an ancient sophist, or a modern charlatan.

The Removal of the Upper Jaw first performed in America.—"In the 20th vol. of the Medico-Chirurg. Transactions, the credit of first having removed the upper jaw, is attributed by Mr. Liston to Mr. Lizars of Edinburgh. The operation of Dr. Stevens, and subsequently that of Dr. David L. Rogers, then of this city, were both antecedent to that of the Scotch surgeon, and were completely successful. An account of Dr. Stevens's operation, which was performed on the 13th of August, 1823, may be found in the Appendix to Sterling's Translation of Velpeau's Surgical Anatomy, N. Y. 1830. Dr. David L. Rogers's operation was performed in May, 1824, and was published in the 3d vol. of the N. Y. Med. and Phys. Journal. Mr. Liston, in his historical notice of operations on the upper jaw, makes no mention of either of these."

Medical Quarrels in New York.—We regret to perceive in the following, the evidence of an amount of quarrelsomeness, or, at all events, of quarrels in New York, which we should not have supposed to exist. We fear, however, that human nature is the same in either hemisphere, and the jealousies of rivalry as well as the spirit of party are weeds of universal growth and rankness.

"We would not be understood to say, that since the days of these once distinguished men, the spirit of inquiry has departed from us: far otherwise. Yet with humiliation be it acknowledged, that ever since their day, the bonds of fellowship which should have held us in unity to the support of one another, and to noble emulation in the promotion of a common interest, have been continually slackening. The spirit of discord has been awake, and the poison of its breath has hung upon us, until it has withered our institutions almost to extermination. Talent and ability have been exerted single-handed; and often, too, opposed by those who should have fostered them. There has been no commanding, and, at the same time, conciliating voice amongst us, to emulate our youth, to urge on our middle-aged to labour, to call upon our advanced in life for the result of their experience, to unite the whole in unison, and to direct the current of popular feeling, as well as of popular interest, towards the advancement of the profession."

American Surgery.—Our contemporary pays a high, and, we think, a merited

compliment to the surgery of his country. It has been graced by illustrious names, and signalised by memorable achievements. But, if we may be permitted to hint a fault, we should say that it is too much of the continental character, deals too liberally in the knife and in bloody operations, and too little in that "medical surgery, which is cultivated with such signal success in England." The latter indeed is unobtrusive, and unseen by the hasty visitor. It escapes the observation of foreigners, makes no display in the amphitheatre, and does not astonish on the page of a journal. Yet it is incomparably better (if the relief of suffering and cure of disease be deemed desirable) than the flashy amputation of a limb, or the rapid extirpation of half the bones of the face. How few are the cases in which such operations can be performed, how much fewer those in which they can succeed, in comparison with the numbers which medical surgery benefits. It is an index of a low amount of medical knowledge, when great operations are common.

VASCULAR AND SENSITIVE TUMOUR OF THE FEMALE URETHRA.

The case is related by Dr. Alexander Hosack, in our new American Contemporary. We cannot usefully compress it.

Case.—"In May, 1835, I was consulted by a servant woman, in a family where I was in attendance, for a complaint which she said had caused her considerable distress, and, as she expressed herself, it appeared as if something had dropped into the passage immediately after making water, causing her great pain at the moment, and which frequently bled, particularly upon being touched by her linen. Upon the slightest exertion she was seized with bearing-down pains to such a degree as to compel her to take to her bed. These difficulties, she said, had been gradually increasing upon her for two or three years, and being unmarried, she was from delicacy induced to conceal her sufferings until no longer able to bear them.

From this statement I was induced to make an examination, which clearly explained the cause of all her trouble. I discovered two or three little tumours immediately within the meatus urinarius, to which they were attached by a narrow neck. They were of a florid red colour, and appeared to be covered by the delicate lining membrane of the urethra. They were exquisitely sensitive, and bled upon the slightest touch. In form they resembled a split pea, varying from that in size to a small kidney bean, and placed upright, in such a manner, as to break the flow of urine. The patient did not however complain of the pain upon urinating as her greatest distress, for it was not to be compared to that caused by exertion, or from contact of the dress, which was frequently excruciating.

By raising these tumours with a probe, I discovered their attachment to be limited to the margin of the urethra, and suggested to her the propriety of having them removed, which I assured her could be readily done, and with comparatively little pain. Having obtained her consent, I snipped them off with scissors: the hæmorrhage was not excessive. In a few days the part was healed, and she appeared to be completely rid of the evil, until about six weeks after, when the sensitiveness and other symptoms returned. In the course of three months I was again requested to relieve her if possible by a further operation. Upon examination, I found the margin of the urethra fringed with the same highly organized structure. It appeared as if the lining membrane had been prolapsed and was turgid with blood; or in other words, had shot out like a fungus. Under these circumstances I determined to remove the diseased structure by excising the meatus urinarius, and this was accordingly done. The wound in due time was healed, leaving the parts apparently sound, with the exception of a few spots of discoloration in the folds of the nymphæ, which I afterwards destroyed by caustic.

The extremity of the urethra remaining somewhat harder than might have been expected in sound parts. I expressed doubt whether it might not be the incipient stage of scirrhus. The disease, however, in the course of a few months returned with all the distressing symptoms as before enumerated. The patient being again willing to submit to any operation that I might advise, I determined to remove the urethra to an extent that would hold out a better prospect of success. My friend, Dr. Wilkes, with whom I consulted, confirmed this opinion, and assisted me in the operation.

The patient being placed upon the bed in a recumbent position, with the legs flexed upon the body, I began with measuring the length of the urethra, by introducing the female catheter, and marking it the instant the urine began to flow; this precaution I considered necessary, from the fact that the length of the urethra, in females, is very variable; at the same time, I was unwilling to encroach too much upon the bladder, which might endanger consequences more distressing to the individual than the existing disease.

The preliminaries being attended to, I seized the fungous excrescence with the *pince* of *Museux*, and drawing it out, I circumscribed the urethra with a knife, carried on the dissection until I had detached about three-quarters of an inch in extent, as I supposed. I then examined the urethra at the upper extremity of the wound, and finding it perfectly natural and free from all hardness, I separated it at that point. The hemorrhage for the moment was very great; but by pressure, constantly kept up with a compressed sponge, it was arrested, or so much restrained, as to do away with all anxiety on that account.

The patient having made water a short time previous to the operation, I did not consider it necessary to leave a catheter in the bladder, which I afterwards regretted, as I was obliged to draw off the urine the following morning, but not without considerable difficulty, as may be imagined. I determined, however, for the future, to leave the catheter in the bladder, or at least until the urine should flow at its side; which took place on the sixth day, when I removed the instrument. Since which time, she has enjoyed full control over that organ, and voids urine with comparative ease.

It is now six months, and no return of the disease. No bougie was introduced to keep open the mouth of the urethra, as might, *a priori*, have been considered necessary. Indeed, I purposely avoided using it, lest the irritation might predispose the parts to a return of the disease. Upon examining the part removed, I found the urethra to be very much thickened and hardened at its extremity, but this circumstance not being observed in other instances of this disease as related by different authors, I must conclude that it had no agency in the growth of these tumours, but was probably the result of irritation."

Dr. Hosack refers to several cases which have at various times been published. We have reason to believe that they are not very uncommon—one, in its incipient stage, has fallen under our own observation. A bright, exquisitely sensitive tubercle, about the size of a pea, was attached to the posterior part of the orifice of the urethra. We snipped it off with a pair of scissors, and lightly touched the surface with potassa fusa. We have seen the lady since, (it is now three years since we operated.) and she has had no return of the disease. Dr. Hosack, from weighing all the cases he is acquainted with, concludes:—

1st. That the disease is characterized by peculiar symptoms.

2d. That it is not confined to any age.

3d. That it is unaccompanied with discharge, unless the parts be chafed or abraded.

4th. That in order to prevent a return of the disease, it is better to remove, at once, the external orifice of the urethra, including the tumours.

5th. That it is a complaint of slow growth, and does not attain to any great size; for, in no instance yet recorded, so far as I am enabled to learn, has it been found larger than a small cherry.

TREATMENT OF FRACTURES OF THE EXTREMITIES BY THE IMMOVEABLE APPARATUS.

Drs. Heard and Gould, House Surgeons of the New York Hospital, direct attention to the treatment of fractures adopted by M. Seutin.

The apparatus consists of the following parts, viz:—1st. 5 or 6 rollers 6½ yards in length and 3 inches in breadth. 2d. 2 or more pasteboard splints.—3d. a quantity of starch, such as is used by washerwomen.

The method of applying this apparatus will be more readily understood by selecting a case of simple fracture of the leg, and detailing the various steps of the process.

The bones being reduced and held in coaptation, a roller is applied from the toes up to the knee; this is first to be thoroughly saturated with the starch, by means of a brush, or, what is better, the hands, rubbing it well in; the surface is then coated with a thick layer of the starch; a second roller is now applied and treated in a similar manner with the starch. Two splints of paste-board of sufficient length to extend from the knee to the sole of the foot, (under which they should pass) are to be moistened with warm water, and then saturated and coated with the starch; these are now to be applied, one on either side of the limb, being accurately moulded to the parts. Over these splints a third and fourth bandage is to be applied, saturated with the starch like the two preceding.* The limb is now to be laid on the heel, on a pillow, and the apparatus allowed to dry and become hard, which it usually does in the course of from 48 to 72 hours: when this has taken place the patient may walk about with the aid of crutches.

The splints should be made of that kind of paste-board denominated *binder's board*, and should be cut out with a strong pair of scissors; they should have foot pieces extending from the heel to the toes; they should, also, have small triangular pieces cut out on the sides, one inch apart; these splints should nearly, but not quite, encircle the limb,—an interspace being left in order that if the apparatus should become loose from the subsidence of the swelling, or any other cause, they may be approximated by a bandage firmly applied over the whole apparatus. It may sometimes be necessary to apply two sets of splints, in which case the outer set need extend no lower than the ankle.

We shall now enumerate some of the advantages which this method of treating fractures possesses over all others:—1st. Its accurate adaptation to the limb. 2d. Its lightness combined with strength. 3d. Its cheapness and the facility with which it can be obtained. 4th. Its easy application. 5th. Its comfort to the patient. 6th. The exemption it affords the patient from ulceration of the heel, by no means an uncommon occurrence with the ordinary fracture box. 7th. The freedom of motion it allows the patient; his health not suffering from confinement to bed, and to one position for from 6 to 8 weeks, or even a longer period. 8th. It obviates the necessity of those repeated adjustments so necessary in other methods. The surgeon may rest satisfied that all will go right.

These advantages are certainly sufficient to give the preference to this apparatus over all others now in use. There are certain cautions to be observed in the application of this apparatus; if there be much swelling with heat and pain in the limb, it will be best to delay the application until these shall have, in a measure, subsided; that passive swelling, so to speak, which remains after the subsidence of the inflammation being readily removed by the apparatus. In applying the bandages, great care should be taken to have the pressure equable from the toes to the knee.

The Reporters relate fourteen cases. The fractures were—simple, of the

* Sometimes it may be well to apply one or two more bandages.

leg 11—compound, of the leg two—and simple of the arm one. No doubt this plan of the immovable apparatus is adapted for many cases, and is particularly applicable as a means of shortening the duration of confinement, even when splints shall have been employed at first.

NEW REGULATIONS FOR MEDICAL GRADUATION IN THE UNIVERSITY OF DUBLIN.

"The times of graduation are Shrove Tuesday and the first Tuesday in July. The medical examinations terminate the Tuesday of the preceding week. Candidates must have previously completed their medical education, and produced a chart testifying to the details of the same and subscribed by the Registrar to the Professors in the School of Physic, as well as by the persons signing the certificates.

Medical students may obtain the degree of Bachelor of Medicine in two modes:—

1st. Candidates *who have graduated in Arts* may obtain a degree of Bachelor of Medicine at any of the ensuing half-yearly periods of graduation, provided the requisite medical education and examinations shall have been accomplished. The payment at entrance is £15. The fees for study in Arts, during four years, are £7 10*s.* each half year; and the fees for graduation in Arts, £8 17*s* 6*d*

2nd. Candidates are admissible to the degree of Bachelor of Medicine, *without previous graduation in Arts*, at the end of five years from the July following the Hilary Examination of the first undergraduate year, provided the usual education and examinations in Arts of the first two years of the undergraduate course shall have been completed, as also the medical education and examinations as in the case of other candidates. The fees for two years' study in Arts (besides the usual entrance payment of £15) are £7 10*s.* each half year.

The graduation fees for the degree of Bachelor of Medicine are £11 15*s.* The Testimonium of the M. B. degree will contain the following certificate: 'Testamur sedulam operam medicinæ navasse et examinationes coram professoribus feliciter sustinuisse.'

The medical education of a Bachelor of Medicine comprises attendance on the following courses of lectures, (of which three, at the discretion of the candidate, may be attended at the University of Edinburgh), in the School of Physic established by Act of Parliament, provided that one, and not more than three, of the courses which begin in November be attended during each of four sessions. The courses are on—Anatomy and Surgery—Chemistry—Botany—Materia Medica and Pharmacy—Institutes of Medicine—Practice of Medicine—Midwifery (by the Professor to the College of Physicians)—Clinical Lectures at Sir Patrick Dun's Hospital during at least one session of six months as delivered by the Professors in the School of Physic—the attendance on such Clinical Lectures by the Professors to be extended to three additional months of another session, unless the practice of the hospital be certified by the ordinary physicians of the institution to have been attended from the 1st of May till the 1st of November following the session.

The fees for attendance on the Clinical Lectures are regulated by Act of Parliament—they amount to £3 3*s.* to the Professors for each three months' attendance, and (provided the student be of two years' standing in the University) £3 3*s.* to the Treasurer of the Hospital for the first year, with a proportionate sum for any longer period. The fees for each of the other courses are £4 4*s.*

The examinations for the degree of Bachelor of Medicine are conducted by the Regius Professor of the University, the Six Professors of the School of Physic, and the Professor of Midwifery to the College of Physicians.

No further examination is requisite for the degree of Doctor of Medicine, which may be taken at the expiration of three years from taking the degree of M. B. *provided the candidate shall have graduated in Arts.* The fees for the degree of Doctor of Medicine, which entitles the possessor to the same elective privileges as the degree of Master of Arts, are £22.

(Signed, J. H. SINGER,
July, 1839. *Deputy Registrar.*

CLINICAL REVIEW.

REPORTS OF LUNATIC ASYLA.

I. REPORT OF THE MONTROSE LUNATIC ASYLUM, INFIRMARY AND DISPENSARY, FOR THE YEAR ENDING 1ST OF JUNE 1839.

This Report is drawn up by the medical superintendent, Dr, Poole, and is very satisfactorily executed. We do not deem it requisite to go into the Report systematically, much of it referring to points we have often dwelt on. The following observations merit attention, the more, too, as patients are frequently reduced excessively and kept reduced, when sedatives, nay even support, are needed.

"Several of the cases, indeed, having been actively treated, before arrival, with a view to allaying excitement, needed a process totally unlike what is imagined to be the routine of lunatic asylums. They were in hazard of sinking from mere debility, though perhaps as noisy and turbulent as ever. Rest, the warm bath, generous diet, moderate cordials—possibly opiates and anodynes, &c., according to circumstances—together with free access to the open air, the interdiction of all ascertained annoyances, obvious confidence and kindliness on the part of attendants, were had recourse to, and never so unsuccessfully as to justify another system. It is a serious mistake to believe that the most alarming of the symptoms now enumerated occurred principally in robust subjects, who could bear depletion and a lowering treatment to an indefinite amount. A *Septuagenarian*—pale, withered, feeble, and exhausted—was one of them. I mention him as an example every way *in extremis*, but, though not equalled, it was approximated or had analogies in other instances. He rallied. A much younger man, nearly as debilitated, is now progressing in the same path; but, curiously enough, though clearly thriving, and almost as peaceable as he had been the reverse, he happened to be a humble admirer of the Sangrado doctrine, and insisted on bleeding, which I was sure would have been the death of him. I have no doubt that he will be a convert ere long, for he acknowledges some improvement."

Dr. Poole dwells of course on the advantages of occupation, and practises gentleness and moderate licence. And he reprobates the disinclination of friends to send patients to asyla, till time has gone far to rivet their malady.

II. NINETEENTH ANNUAL REPORT OF THE DIRECTORS OF THE DUNDEE ROYAL ASYLUM FOR LUNATICS, FOR THE YEAR ENDING 31ST MAY, 1839.

In this, as in other instances, we shall merely pick out what particulars are generally interesting.

1. *Occupations of the Lunatics.*—A Table is presented, which exhibits in a strong light the great modern improvement in the treatment of the lunatic—giving him corporeal occupation and mental recreation. The Table we omit because the naked fact is of more consequence than its numerical value; but the following observations bearing on the fact deserve insertion.

"During the erection of the buildings, the patients are busily employed in throwing the foundations, making drains, and in removing earth and rubbish. By their labour several mounds have been erected within the airing grounds,

paved on the top, which command a view of the surrounding country, and dispel the monotony and tediousness of a life much secluded from the world.

The occupations of the higher classes are more varied, and their tastes are gratified in every reasonable wish and healthful exercise. Their amusements and recreations have been particularly specified in former Reports: it may be proper, however, now to add, that, for some time, they have been indulged with more frequent excursions into the country; and, for this purpose, open and close carriages are provided for them twice a week. There is one fact that cannot be passed over in silence, as it has excited feelings of surprise in the breasts of those who have most experience in the treatment of the insane: A lady of the highest class some time ago expressed a desire that some children were put under her care,—her wish was gratified. A few children from the neighbourhood attend her daily, and she superintends their education, not only with maternal tenderness but with prudence, temper, and judgment; and, amid the many privations to which she is subject, she is conscious that she is not living in vain, but is employing the means within her power of conferring some benefit on our race.

The Directors have now full experience of the beneficial results that have flowed from the introduction of labour into the Asylum, and they have the satisfaction to know that the practice adopted here is closely followed in a number of similar institutions. There is no doubt that these exercises have increased the number of cures, ameliorated the condition of the patient, and shortened the period of the residence in the House; for there are not a few who are now restored to the peaceful bosom of their own families, happy in the consciousness of conferring benefits on others, who without these means would have been still lingering in the airing grounds, sinking under the heavy burden of imaginary evil, or the pitiable victims of illusory hopes."

2. *Attendance on Religious Worship.*—Aware, says the reporter, that some distinguished writers still entertain doubts of the propriety of introducing public worship into an Asylum, and recommend great caution and prudence in respect to a subject so sacred and exciting as religion, the directors are quite ready to admit that, in regard to a number of the patients, their joining in social religious exercises would be quite discordant to the state of their own minds, and no small disturbance to the pious feelings of others; and though in a few cases it may be difficult to decide as to the propriety of this step, yet the experience of nine years in this Asylum sufficiently proves that, in regard to patients in general, these doubts are imaginary and groundless; and it is believed that, as far as the experiment has been judiciously tried, the same testimony has been uniformly given by the directors of similar institutions.

The average number who have attended the services of the chaplain during the year is one hundred and twenty-five, while a number attend different churches in Dundee for reasons that would be tedious to enumerate.

3. *Impossibility of totally dispensing with Personal Restraint.*—In the recent publication of Mr. Hill of the Lincoln Asylum, he asserts, "that, in a properly-constructed building, with a sufficient number of suitable attendants, restraint is never necessary, never justifiable, and always injurious in all cases of lunacy whatever." It is believed that, if this point were to be settled by practical men, Mr. Hill would be left in a very small minority. But, even allowing the practicability of the measure, whether it be humane and desirable, is a question that appears to be very problematical. If the mind of a patient can be subdued by the power of intimidation, so as to paralyze his efforts in the hour of maniacal paroxysms, would his condition be more happy, or his welfare more promoted, by being under the influence of terror? Is it better to enslave the mind than enchain the body? May there not be greater benevolence and sympathy in

subjecting the members of the body to salutary restraint than in the exercise of a moral discipline which will ever appear to human feeling burdensome and oppressive? Instances are not unfrequent of patients, when warned by symptoms of approaching paroxysms, requesting to be placed under temporary restraint; and, when the hour of illusion has passed away, are happy in the reflection that they have been without the power of committing an act which reason and conscience condemn.

With the exception of instances of very violent excitement, where there is strong apprehension of danger to the patient himself, or to others, there has been no restraint ever imposed on the inmates of this House; and, while all necessary precautions are used for the safety of the individual, all compulsatory measures are carefully and anxiously avoided. It sometimes happens that all the patients of every class and in every stage of the disease are free from every kind of restraint whatever; but, as some restraint might occasionally be found necessary among the same number of persons of sound mind, placed in similar circumstances, it is not thought proper that in an establishment of lunatics the life of an individual be placed in jeopardy, or the general comfort of the inmates be disturbed, in support of a theory which seems to aim at ideal perfection rather than to promote practical utility. At the present moment there are only three males and two females subjected to temporary restraint; some of them have no consciousness that they are suffering any evil; and in every society it is unavoidable that a person who disturbs the peace of others suffer for the sake of the public weal.

4. *Two descriptions of Suicides.*—Among the admissions there was, as usual, a number of suicidal patients; and the same thing has been observed here as in other institutions, that the majority of these cases occur among the females. In some of them, previous to admission, the attempt at self-destruction had nearly been successful; and in too many the attempt seems to have been the first circumstance to awaken the minds of the relatives to the necessity of placing the sufferers under proper restraint. One of them has already been confined no less than six times during the course of the last eighteen years. Like many other patients, with this propensity, when the disease is just commencing, she feels an almost uncontrollable impulse to commit self-destruction, with an almost equal dread of it. For a short period at the beginning of the disease, she is able to withstand the impulse, and her great desire is then to be sent to the Asylum as a place of refuge, where she is certain of being restrained from committing an act so fearful. More than once, however, not having been sent soon enough, the impulse overpowered her, and her attempts were nearly successful. In the majority of these cases we have ascertained that there was a hereditary tendency to insanity.

There is another class of patients who are occasionally suicidal, and who are generally the most difficult patients to manage,—we allude to such as seem from their birth to have a deficiency of moral feeling, with a headlong propensity to various descriptions of vice, frequently combined with a dullness of intellect, which may be termed partial idiocy. Sometimes also there are instances of the same propensity to immorality among those who are well educated and whose intellectual faculties had formerly been perfectly unclouded, but the natural consequence of indulgence in habits of immorality is to reduce them also after a time to a state of partial, sometimes of total idiocy. Our experience tells us that patients of this class are seldom to be depended upon. They seem to have some obliquity which does not permit them to distinguish between right and wrong, and either lack memory or are incapable of performing their promises, by being as it were impelled to commit acts of folly and intemperance. We are persuaded that this variety of insanity is often called into action by want of proper education and proper training in early youth, and that, in many cases

by judicious conduct and salutary discipline, derangement might have been prevented. It would have been well for many such patients that, instead of having a competency, they had been obliged to earn a livelihood by the sweat of their brow.

5. *Taciturnity cured by a Blister.*—"The patient was a man of high moral character. Before he was sent here he had an attack of general mania, succeeded by weakness, torpidity, and taciturnity. In the latter state we admitted him in the Autumn of 1837. For several months afterwards, on being repeatedly urged, he would say, 'Yes, or no,' but without a proper knowledge of his reply; but for a long time past we could not get even a monosyllable from him. His appetite fell off for some time: he became weak and emaciated, and would take scarcely any nourishment, but a little wine and beef-tea daily. At last he was obliged to keep his bed; and, to rouse him, we tried a blister on the neck. The day following its application, he looked more lively, and attempted to speak to his attendant: His wife was immediately sent for; and, when she came, the spell that bound his tongue entirely gave way, and he talked as collectedly and sanely as ever he did in his life. On being asked why he had not spoken for such a length of time, he replied that he had not the power to do so, for that something always prevented him, and that it was the blister, that restored him to speech and consciousness. He has been discharged well."

6. As a *Cause* hereditary predisposition is still found in the foremost rank.

7. *Mild Remedies very necessary.*—"It is a mistake to suppose that lunatics indiscriminately require larger doses of medicine than others. There are patients here who would be materially injured by more than a tea-spoonful of castor oil or Gregory's powder, and powerful men whose stomachs cannot bear antimony even in the smallest dose. One patient experienced fits, by night as well as by day, of distressing and loud eructation, which was speedily relieved by gentle medicine and the shower-bath, and then an effectual cure rapidly followed. For certain patients in some Asylums we see a bath made use of called the "Bath of Surprise." It is unknown here, but from its description we think it a very questionable remedy. Local blood-letting in small quantities, repeated according to circumstances, dry cupping, and in one case the application of a seton to the nape of the neck, have been of the most essential service. One gentleman whose malady was caused by debauchery, and who is subject to violent paroxysms, and takes every opportunity to attempt to commit a *private vice*, has been much benefitted by having his occiput regularly shaved and frequently sponged with cold water."

III. MEDICAL REPORT TO THE MANAGERS OF THE LUNATIC ASYLUM OF ABERDEEN, FOR THE YEAR ENDING 30TH APRIL, 1839.

The Reporters Drs. Macrobin and M'Kinnon, observe that—the number of cases admitted into the Aberdeen Asylum during the last year, amounting to 53, has been larger than during any former year. This increase may be accidental; but it is more probable that insanity is not only more commonly met with in society, from the growing nature of the population, but that it is so relatively from the operation of that law peculiar to it, with a few other diseases, viz., its hereditary transmission from one generation to another. And the law just alluded to is, perhaps, stronger, in regard to insanity, than almost any other malady. As of late years much improvement has been effected (both at home and abroad) in regard to the treatment of a disease which used, at one time, to be considered beyond the reach of medical science,—so there is reason to hope

this improvement may continue to keep pace with its growing frequency. And thus, in the event of insanity becoming more common, it will also be more frequently cured. Considering also the gradual change taking place in the public mind, in regard to the subject of insanity in general, we confidently trust that, ere long, that foolish prejudice will be got rid of, which, by leading, in many instances, the friends, as well as the patients, to conceal the malady as long as possible even from the physician, throws one of the greatest barriers in the way of the recovery of the insane; the early and curable stage being allowed to pass away without any attempt at rational treatment, or, at best, under the trial of ill-directed and inefficient measures

The greater number of cases occurred between the ages of 20 and 40, that period when excitements of all kinds are most rife.

Of the 53 cases the proportions were—

	Males.	Females.	Total.
Mania - - - - - -	5	8	13
Monomania, *with excitement* -	7	7	14
Monomania, *with depression* -	5	8	13
Dementia and Fatuity - -	7	5	12
Moral Insanity - - - -	1	0	1
	25	28	53

The Reporters remark that the monomaniacs were seldom purely *monomaniac*, the judgment being usually perverted upon other points.

They remark that, in the last report, allusion was made to two cases of *moral insanity*, or that form of the disease which is accompanied by perversion of the *moral*, without corresponding derangement of the *intellectual*, faculties. Another case has since then come under our notice, in which the means found useful in other cases of insanity effected a recovery, viz.—removal from the scenes and persons that tended to keep up excited feelings, together with the exercise of moral discipline, and appropriate medical treatment. Such cases are interesting in certain circumstances, from their medico-legal bearing on responsibility.

Causes.—A Table is given for the purpose of conveying some idea of these. Hereditary predisposition was traced in ten cases. Intemperance, observe the Reporters, in the use of ardent spirits was found to be the exciting cause in five of the cases. In the first stage of insanity, cordials are frequently had recourse to, in the vain hope of removing unwonted despondency, while they but too often precipitate the attack. Overstrained mental application among men, especially when accompanied by *anxiety*, and overstrained and perverted devotion in females, are not unfrequent causes of insanity. But, amongst the latter class, perhaps the most frequent of all causes are uterine irritations and derangements. Fortunately, the primary disorder is often amenable to medical treatment, in which case the secondary affection of the brain usually subsides; unless, from neglect, that which was functional has assumed the character of organic disease. In a few instances, the insanity was an effect of a previously diseased state of the nervous system, which had manifested itself in the way of apoplexy or palsy. The mental disorder in these cases, almost invariably put on the form of dementia, or fatuity, from the first; and the patients generally betrayed a propensity to violence.

Mortality and Morbid Anatomy.

"Fourteen patients died during the last year. Five died of *general palsy*; and it may be noticed that these were all male patients; thus confirming what has been remarked so often in former Reports, and what corresponds also with

the experience of other institutions, viz., that such palsy is relatively more common in men. Three died of consumption—a disease frequently met with among the inmates of an Asylum. Two females, of weak constitution, sank under the exhaustion consequent on a violent and prolonged stage of excitement. Two died apoplectic. One died of dropsy; and one of inflammation of the lungs. In all, with one exception, (where the consent of the friends could not be obtained) an examination of the body was made after death. The morbid appearances corresponded in most respects with those noticed in former Reports, and tended to confirm us in the opinion that insanity is not necessarily or essentially of an inflammatory nature in its early stage, though it rarely fails to lead to inflammation, and its products, when it has continued long. Sometimes the most violent maniacal excitement appears in connexion with a condition of the nervous and vascular systems, in which the patient is calmed, rather than excited, by the cautious exhibition of stimulants: and which leaves, after death, no morbid appearances corresponding to the violence of the symptoms during life."

These latter observations we deem important The excitement of mania is too often looked on as the excitement produced by vascular action, and treated mischievously in consequence of that view. The morbid appearances after death are thus stated.

Opacity of the arachnoid, and a copious effusion of serum, sometimes milky —presenting the aspect of a gelatinous layer over the surface of the brain— were the most common of the morbid appearances; and never failed to be well marked in those who, during life, had exhibited paralytic symptoms. As regards the other organs of the body, disease of the heart, generally in the form of hypertrophy of the left ventricle, was frequently found. Such a condition of the organ must, no doubt, in some instances, have operated as a remote cause of insanity, by exciting, and otherwise interfering with the regular distribution of the blood within the head; while, in other cases, the strong emotions of the mind, and violent muscular exertions—the result of an excited state of the brain—may have re-acted on the heart, and the disease of the latter been in this way an effect, rather than a cause of the insanity. In one of the patients, whose delusions, during life, were of a hypochondriacal nature, the morbid appearances were instructive; for, while the traces of morbid action within the head were slight, an unusual arrangement of the viscera of the abdomen was found, the transverse arch of the colon being tied down to the rectum by a morbid adhesion, so as at all times to have interfered with the functions of the intestinal canal. The symptoms, during life, also indicated some abdominal lesion.

Of occupation the Reporters of course speak favorably. It is, when judiciously prescribed and pursued, a very admirable remedy.

We can only add, in reference to all these reports, that we are pleased at their appearance. How much the treatment of insanity has improved. How reasonable it is to suppose that it will improve still more. The Reporters deserve thanks for their zeal.

EXTRA-LIMITES.

Some Observations on the Treatment in Iritis. By Dr. *MacCabe*, Hastings.

Sir.—I have been led to offer the following observations from reading in the last number (61) of your Journal, a review of a work "On the Diseases of the Eye," by Mr Morgan.

My object is to suggest, that the treatment in iritis, when we have reasonable grounds to suspect a rheumatic or gouty diathesis, should essentially differ from that usually followed in pure iritis, and which I trust the following two cases may illustrate.

About eight years ago (I hope I may be allowed to say—better late than never), I was consulted by Sir F. Sykes, for some slight affection of the head which struck me at the time as being in some way connected with gout or rheumatism; in the progress of my attendance, he asked me had I heard of his celebrated sore eye? he said he had thirteen attacks of inflammation of the *same* eye in fifteen years; on each attack he had been blooded, generally to the amount of 60 to 80 ounces, with the usual grouting of leeches, blisters, cupping, lotions, &c. and confinement to a dark chamber from three to five months. I had the presumption to express a wish to break a lance (not a lancet) with this persevering antagonist, and he was good enough to say, that on the next attack, wherever he might be in England, he would give me the opportunity I wished for. In about four months from that period, on my way to Bath to visit a patient, I met Sir F. posting down to Hastings in performance of his promise, in the safe custody of his old foe.

On the next morning I visited my patient, and ordered a few ounces of blood to be taken from him by cupping, together with some other minor remedies evidently without any advantage, perhaps the reverse. On the following day I ordered dr. doses of turpentine with mucilage; cinnam. water and tr. of lavender, three times a day. On the morning after I was sent for, with a message, "that Sir F. was much worse," he had taken four doses of the medicine, but it was added with a *quite different complaint*, as the eye was nearly well. On my arrival I found my patient suffering from an obstruction of the bladder from which he was soon relieved by fomentations—but, as he informed me, after the third dose of the medicine, the pain had entirely ceased in the eye, and that which the day before, to use a homely expression, looked like a piece of bullock's liver, had a brownish, I may say faded, appearance.

One or two draughts a day perfected the cure, and I understand that on a subsequent slight attack, a recurrence to the same medicine was followed by similar results.*

Case 2.—About three years since, Mr. C——d, son of Sir C. C——d, put himself under my direction for a severe inflammation of the eye; this was the second or third attack; the last of which left a slight speck on the cornea. Here also I had good cause to suspect a gouty taint in the constitution. Sir

* I recollect that about the period alluded to, I accompanied Sir Francis to London and got him to consult the Senior Editor of this Journal for some complaint of his digestive organs.

C. happening to be in London at the time his son was under my care, he described the symptoms to Mr. Alexander, who had treated Mr. C. on the last occasion. Mr. A. suggested a couple dozen leeches to the forehead, which out of respect to that eminent oculist, I reluctantly acceded to; the consequence was evidently injurious, even to the patient's feelings; his sufferings being increased. I then ordered the turpentine as in the last case, with immediate relief of all the symptoms, and in eight days he was able to resume his usual occupations and amusements. In this instance no metastasis took place.

SIR JAMES MURRAY'S RECLAMATION.

To the Editors of the Medico-Chirurgical Review.

33, *Piccadilly, London, Aug. 24th*, 1839.

GENTLEMEN,—Last winter I apprized you that in future you could obtain my solution of magnesia from a *then* agent of ours in London. That person has since set up for himself, and has garbled the eulogium which you wrote in your Medico-Chirurgical Review; and has applied your testimonial to an imitation of his own, not in existence when you published your favourable opinion of the genuine article.

If characters intended for one person or thing can be thus transferred to the purposes of others, then all confidence would be at an end, particularly in matters connected with medicine, health, and life; and the merit and credit of all discoveries and improvements would be alienated in open day. As a friend of fair dealing I beg of you to favour me with your opinion of such conduct.

I remain, Sirs, yours sincerely,

JAMES MURRAY.

N. B.—We have continued to use and prescribe Sir James Murray's solution of magnesia, and the character given of it in our Journal, was, of course, applied to the original.

ABSTRACT OF A PAPER READ AT THE MEDICAL SECTION, BRITISH ASSOCIATION, BIRMINGHAM, 28th AUG. 1836. By Sir *James Murray.*

"MR. PRESIDENT,—The seventh Report of this great Association contains a paper which I had the honour of submitting two years since at Liverpool: I there detailed the appearances which I discovered upon dissecting two persons who had died of excruciating local pains or neuralgia, and where I found the nervous membranes of the diseased parts studded over with a frost work of minute or microscopic crystals, presenting a large surface of irritation. Upon analysing these crystals, and also the crusts of scald-head and lepra, and the discharges from old ulcers, I found a large proportion of urinary salts, and particularly uric and compounds. In the same paper many proofs were adduced, demonstrating that many other complaints originate from and forming in the stomach, and eventually pervading the system, where their acrimonious deposits produce diseased action, and thus frequently become the causes of gout, gravel, and even of febrile excitations and nervous affections. I further pointed out that such acerbities produce or aggravate those thousand forms of dyspepsia which are generally ac-

companied by the presence of acrid matter in the alimentary canal. Lastly I proved, that thirty years' experience had left no doubt of the immense superiority of fluid magnesia, not only for correcting those acids evolving in the stomach, but also for dissolving and washing away those saline and acidulous impregnations with which the solids and fluids are frequently imbued.

Soda and potass are injurious in such cases, because most of the noxious saline depositions contain *urates* of those very *alkalies*. Solid magnesia is objectionable, because it cannot enter the circulation, nor follow and neutralize acidities in distant organs. Besides this, it settles in concretions itself, as I every year observe during my observations as Inspector of Anatomy.

When concluding my paper at Liverpool, I was requested by many members to describe the fluid magnesia at a future meeting. I now present it before you, and trust when you consider that the crude earth is a source of injury to almost every infant, you will not accuse me of undue partiality to this *first offspring of my earliest labours and studies*, or that I attach more importance to its extension than it merits deserve.

You observe the fluid is colourless and almost tasteless, that infants and infirm persons can take it without compulsion or disgust, and it is well known that it will remain upon irritable stomachs which reject all other liquids The copious extrication of its carbonic acid hinders the undue evolution or deposition of phosphates or white sand.

By boiling the clear solution in this tube you can prove three things:—that no degree of animal heat will render the magnesia solid again in the body, in fact, it does not subside under a temperature of 212°:—that I have brought the fluid to such perfect condensation (*aided by my late brother during his residence in London*) as to contain about a scruple of the bi-carbonate of magnesia in the ounce of distilled water, and that by a series of processes it is cleared from gypsum, silex, lime, and other impurities contained in common and calcined magnesia from the nature of their manufacture.

Gentlemen, after fair trials, you will admit that rendering the carbonate of magnesia soluble, and completely pellucid in *distilled water*, and administering it in the fluid form, is a more important improvement than people at first sight might suppose. As I elsewhere said, it is not disagreeable to take, nor liable to the subsequent consequences of swallowing the crude drug in its mechanical form of paste or whitewash.

This is a manifest advantage in the mode of exhibiting a medicine of *daily and hourly employment in every nursery and sick-room*. You know that the solid earth and its mixtures, such as Gregory's powders, are in the hands of all persons, medical or otherwise, and are mixed up for every age and every ailment. In my essay on *Dilution* (Longman, 1829) I pointed out the danger of giving crude magnesia, proofs of which had occurred to Dr. McCluny of Belfast and myself in 1809.

The discovery of these dangers led me to endeavour to render available a known principle of nature, to new purposes in medicine, by novel processes of art. For this purpose I spared no expense in procuring engines capable of solidifying carbonic acid gas in contact with magnesia, so as to hold that earth dissolved in distilled water. You will observe how entirely this single and pure solution differs from those decompositions spoken of in old dispensatories, as adopted by recent fabricators, that is *mixing sulphate of magnesia with carbonate of soda*, the resulting portion contains *Glauber salt*, a crude dose for tender females or infantile disorders!! It is monstrous to hear of and see the conduct of these numerous substitutors of one medicine for another.

That such persons can have no excuse on the score of ignorance of the original article, you will admit with me, when I recount the pains taken in conjunction with my late two brothers, respected medical men, to make this preparation known to the profession in every part of the world. Dr. Hope, of Edinburgh,

at my request, shewed it to his class in 1813—14—15. Professor Duncan recommended it in his dispensatory in 1819—making honourable mention of my name as the inventor In 1816 I had printed a clear account of it in the Newry Magazine, edited by the present James Stewart, Esq , LL.D. Some years before, Dr. Richardson, F.T.D. honoured me by his celebrated letter, in which he described his former sufferings from gravel, and his perfect cure by this solution. Many of your present eminent members gave me credit for this useful improvement during twenty years in their lectures, such as Professors *Barker* of Dublin University, *Upjohn* of the College of Surgeons, *Moryson* of Glasgow, and the late *Turner* of London and M'Donnell of Belfast, can assure you that he found it to dissolve urinary calculi in 1812. Dr. James Johnson of London, physician to the late king who was present at the reading of my paper at Liverpool in 1827, and also at the London and Westminster Medical Societies, sent to me to Dublin for a supply of the fluid magnesia for his own use, and recorded in his *Medico-Chirurgical Review*, for April last, *the very great benefit he derived from it*, adding a request (since suppressed in the hand-bills of an imitator) as follows : '*We hope Sir James Murray, the discoverer of the process for preparing this medicine, will take the trouble to make it more generally accessible to the public in this Metropolis, there being only one or two authorised agents here.*" This very agent garbled this eulogium of Dr. Johnson, struck out my name, and applies the testimonial in open day to a compound of his own, substituted by himself in London, and *commenced three months after Dr. Johnson's recommendation was written!!!* Dr. Johnson, from his love of fair dealing, will, sooner or later convict this pretender and settle the point, whether he recommended the original preparation invented by Sir James Murray, or the substitute produced long afterwards by an agent, an imitator, Mr. Dinneford.

The original handbills of this Dinneford, printed by his own order, and circulated by him in May last, when he was selling "*Murray's Solution*," may be seen at 33, Piccadilly, in which he styles himself "SOLE AGENT FOR THE UNITED KINGDOM." In June he reprints the same hand bills, *almost verbatim* (only *altering their names*) and appropriates to his own substitute the letter of Dr. Cumins, and the references to Professors Duncan, Hope, Turner, Moryson, Barker, and Sir Humphrey Davy, which were entrusted to him by his principal, and recorded many years before his imitation was thought of, even by himself.

Gentlemen, Dr. Thompson in his evidence before the House of Commons, proved the danger of vending one preparation under the character and recommendations long awarded to another.

I had resolved not to mingle in either *chemical* or *commercial operations*, but the demise of my late relatives, to whom I had consigned these matters, and the consequent breaking up of their laboratory obliged me to come forward, and protect the preparation from the open piracy of an agent commencing for himself, in June, 1839, long after every improvement was perfected by my family in London or elsewhere.

Gentlemen,—The time to decide disputes about claims is when the *parties are alive*, and witnesses present; fortunately many distinguished members of your body are now here from Dublin, Belfast, Edinburgh, and Glasgow, who have often recorded their high approval of my invention, and can now prove to you that I spent a long life and a fortune in bringing to perfection a medicine of daily and hourly advantage to old and young. As a member of your body, I claim your protection of it, and that you will secure the merit and reward only to him to whom they are justly and undoubtedly due."

The Section expressed satisfaction upon seeing the analysis of the fluid magnesia, and passed an unanimous vote of thanks to Sir J. Murray.

DR. MACFARLANE'S CASE.

(To the Editors of the Medico-Chirurgical Review.)

Leeds, May 27, 1839.

GENTLEMEN,—If you consider the following case of sufficient interest to merit a place in your valuable journal, I shall feel obliged by its insertion.

Feb. 14, I was requested to see Martha Thorpe, æt. 28; complained of tightness in the chest; wheezing, troublesome cough; headache, which was much aggravated by cough; eyelids slightly œdematous; no flushing of the face; legs slightly œdematous; P. natural; had been in this state nearly a week, during the previous night had a good deal of pain in the abdomen, but was quite free from any pain there when I visited her; B. natural; thirsty; she quickened about 5 week previous. Ordered her a smart purgative, and in the evening a mixture for her cough, containing squill with a few drops of tr. opii. 15th. Feels a great deal better; slept well; cough not very troublesome; b. freely purged; no head-ache, thirst, nor pain in abdomen. 16th. I was hastily summoned about 8 a.m., she had had a great deal of pain in abdomen on the evening of the 15th, attributed to eating rich cake to tea, which continued until 12 p.m. and then ceased, and she was easy and slept until her husband got up to go to work, when she complained being very cold. Before I was sent for she was seized with an epileptic fit; I found her just becoming sensible. Complained of her head being confused; I observed some bloody saliva on the pillow, which told me the nature of the fit; another immediately followed. I bled her to the amount of 20 oz. and before 9 o'clock she had 5 fits. On examining, per vaginam, there was no indication of labour. The fits still continued. Before eleven, a.m. I bled her three times to the amount of nearly 50 oz. ordered the hair to be cut off, vinegar and water applied, blister betwixt shoulders, sinapisms twice to the feet, soap suds to be injected per anum every hour, and a strong infusion of senna with salts to be given, if she could swallow. In the afternoon the fits were less frequent but still as violent; the pulse was so much reduced that I did not think it advisable to bleed any more. Ordered a mixture containing ant. tart. gr. vj. in aq. font. ʒvj. c. c. ij., om. hor. I visited her eight or nine times during the day, and there were no indications of labour; her tongue was dreadfully cut and swelled, and from the quantity of blood that flowed from the mouth the attendants thought a blood-vessel had broken. The left middle incisor tooth was knocked out, its fellow and the dens caninus is quite loose, and she has since pushed them out with her fingers; is quite insensible. 17th. 3 a. m. I visited her; had no fit since half-past 12, until I was in the room; had taken 4oz. of the mixture; the uterus seemed lower in the pelvis but no dilatation of the os uteri. Contin. mixt. et addit gum camph. ℈j. 8 a. m. No alteration. 10. a.m. No alteration. 12 a.m. On examination found the os uteri more soft and yielding, and could introduce the tip of the forefinger into it. I desired to be sent for if there was any vaginal discharge or any pains; about half-past one I was sent for, and found the membranes protruding; on rupturing them I found the fœtal head in the pelvis, and the pains continued and expelled the fœtus, immediately followed by the placenta; the uterus contracted and the patient continued quite insensible, but seemed to assist the pains by bearing down. No fit during labour nor since 12 a.m. until 18th, about 3 p.m., which was the last; the bowels were moved by enemata; urine passed involuntarily. 18th. The catheter was introduced but only a few drops of urine flowed; lochial discharge scanty; b. moved twice; urine passed involuntarily; continued insensible; p. 120 weak; contin. mixt. 19th. Rather sensible this morning, answers questions; cough very troublesome; the swelling of tongue rather diminished; p. quick and full. Vespere. Became rather incoherent; heat of surface; head-

ache; p. sharper; eyes rather bright. Ordered hirud. vj. tempor, and ant. tart. gr. vj., aq. ʒvj., c. c. j., maj. q. 2da hor., cold to the head. 20th. Passed a restless night, but not delirious; cough troublesome; can talk better and answer questions; bowels not moved; headache; p. quick and feeble. Ant. tart. gr. iv., muc. g. acac. ʒj., nit. pot. ʒj., aq. ʒvij., c. c. ij., mag. 3tia q q.h. Infus. sennæ c̄ mag. s. statim. Takes lemonade, tea, and sago greedily; vespere; complains of tongue; p. 120; bowels acted and urine also passed involuntarily. 21st. Has passed a tolerable night; headache; pain in abdomen; cough troublesome; expectorates viscid phlegm; thirst; slight heat of surface; swelling of tongue diminishes; urine passed in bed; introduced catheter and drew off 7oz. turbid urine; slight lochial discharge. Vespere—p. quick and feeble; pain of abdomen easier, headache; asked for pudding, and had a little rice pudding and steeped bread for dinner, being the first solid food since the evening of the 15th; ordered the lemonade to be discontinued, it having produced griping; the cold not to be constantly applied to the head; tried to pass urine but could not; drew off 6oz. by catheter; contin. mixt. 22nd. Improving gradually; had the bed made to-day; ordered beef-tea; bowels moved and urine passed naturally; ordered the mixt. to be continued with acid hydrocyan. min. xvi. 23rd. Improving a little. 24th. Ordered squill and tr. opii. in mixt., to drink linseed tea with extract of liquorice at pleasure. 25th, 26th, and 27th. Improving, cannot remember that I visited her on 14th and 15th ult. 28th. Improving. March 1st. Last night she was taken out of bed and carried down stairs and stood upon a stone floor for a minute or two; about midnight severe pain and swelling of right leg came on, and prevented sleep. On examination found the leg swelled from the toes to the knee, but not much swelling of the thigh; pain on pressure in the groin and along the course of the absorbents; cough rather easier; not much heat of surface; b. regular; p. quick and feeble; ordered hirud. vj. to be applied to the groin, calomel gr. ix., pulv. ipec. and opii, ʒss. divid. in vj. c. j. bis die. ℞. Adip. suis. ʒj. ung. hyd. fort. ʒss. extr. bellad. ʒj. ft. ungt. vas. absor. sup. applicand. noc. maneque. The limb to be enveloped in flannel; beef-tea ad libit, and nourishing diet. 2nd. Rather better night; very little pain of leg or groin on pressure; feels sickly; no thirst nor head-ache; perspired a little during the night; rep. hirud, inguin, contin. med. et alia. Vespere—very little pain on pressure; there was tendency to syncope and the bleeding was stopped and a little wine given; been griped and had two motions from mercury; feels sickly; discontinued the powders and ordered tr. opii gr. xxxv. h. s., to have nourishment frequently during the night. 3rd. Has had a pretty good night; no pain of leg and only in the groin when pressed upon; glands slightly enlarged; feels much better this morning; tendency to syncope not so frequent; cough still troublesome; can make a little use of leg; the ointment to be continued, and flannel bandage; p. 116; tongue furred; no thirst; swelling rather subsiding, except about the ancle; ordered decoct. cinch. ter die, nourishing but not stimulating diet, tr. opii gr. xj. h s. 4th. Pretty good night, improving in every respect. 5th. Still improving. 6th. Has had a good deal of griping and several motions during the night; ordered tr. opii grs. xxx. 7th. Had pain in the back of thigh, but no pain in the inside; swelling considerably abated; ordered frictions with olive-oil and laudanum. 8th. Has had griping pain in the bowels; appetite not quite so good; feels sickly from griping; ordered the ointment to be discontinued, and a little wine to be given. 9th. Continues improving. It is needless reporting any farther; the patient slowly kept improving; the leg is yet swelled and weak after exertion. I have recommended Harrogate—to try warm bathing; she can, however, go about her affairs. It was the opinion of her attendants that she had in all nearly 40 fits, and she was not delivered until 30 hours after the supervention of the first fit. I never witnessed epilepsy in so severe a form, I have seen it very severe in drunkards. (and also in a previous case of puerperal convulsions, which, however, did not come on

until 3 hours after delivery, and was treated in the same way, the woman recovered and has had a child since), but not at all so severe as in Thorpe's. I attribute her recovery entirely to the powerful antiphlogistic treatment adopted, and not interfering with the expulsion of the uterine contents. The principal peculiarity was the convulsions attacking at so early a period of pregnancy, and preceded by a severe catarrh.

I intended offering a few remarks, but a fear of taking up too much room warns we to proceed no further. I have merely stated facts as they occurred and leave others to make their own remarks on the propriety of the treatment adopted, &c.

I have to acknowledge myself considerably indebted to your review of Dr. Collins' work on midwifery for the plan of treatment employed, and I bear my humble testimony to the value of that portion particularly which treats of convulsions.

I remain, Gentlemen, yours, very respectfully,
JOHN MACFARLANE.

23, *Wellington Street.*

PTISANE DE FELTZ.

Communicated by Doctor Fergusson of Windsor.

Conceiving it always of importance for the medical profession here to be made acquainted with the proceedings of their professional brethren on the other side of the Atlantic, I herewith send for insertion, if you see fit, in the forthcoming number of your Quarterly Review, the substance of a communication, dated January, 1838, from my friend Dr. Lynch O'Connor, addressed to the Medical Society of Trinidad, on the efficacy of, to us, a new remedy in some of the anomalous forms of pseudo syphilis, which there had either been mistaken for lepra, and abandoned as incurable; or as true syphilis, and subjected without benefit to severe and protracted courses of mercury. The remedy is known in France under the name of the Ptisane de Feltz. Dr. O'Connor has seen it used with great success in the Parisian hospitals, where it was prepared according to the following formula of Monsieur Cullerier, at the Hôtel Dieu.

℞ Sarsaparillæ contusæ ʒii—Schthzveull. ʒss.
Sulphuret. antimonii ʒiv—Aquæ Bullient. O. vi.

to be slowly boiled down to three pints, and a pint to be drank daily. The following cases are given in proof of its powers.

1. Lewis, aged twenty years, till within two years a healthy negro, was placed by his master under my care on the 18th of April, 1831, at which time he was suffering from ozœna—emaciation—hectic fever—nose apparently excavated and tumefied—upper lip tumid and inflamed—soft palate sloughing, with a covering of viscid mucus on the edges, and a blush of dark inflammation extending over the roof of the mouth—voice hoarse—hearing impaired—larynx evidently affected, as the slightest pressure on the thyroid cartilage produced pain, and was succeeded by sanguinolent muco-purulent expectoration, and the deglutition so difficult that he could barely satisfy the cravings of nature. Having ascertained that he had previously, under the care of two professional gentlemen, given the fairest trials to sarsaparilla and mercury, I considered the case as hopeless, from having met in practice five or six cases in this colony of a similar nature, all of which terminated fatally; but recollecting the beneficial effects I had witnessed from the Ptisane de Feltz, at the Hôtel Dieu, I determined on giving it a trial, with only the addition of an injection into the nose of 40 min. nitrous acid to a pint of water. After two months steady perse-

verance, he was restored to perfect health. He was personally inspected by me last Saturday, when I found the only remains of disease to be a nasal intonation of voice, and, from the destruction of the soft palate and uvula, an occasional difficulty of swallowing liquids, which returned through the nostrils, unless he drank slowly and cautiously. The fistula of the palate was completely obliterated; and it is worthy of remark, that neither he nor his parents ever had any symptoms of yaws or venereal disease.

2. Mr. George Reed, a native of England, aged 48, and a notorious drunkard, had been affected for 18 months with extensive cutaneous ulcerations, of a florid hue with elevated edges, and deep-seated pains in the bones. As in the former case, mercury and sarsaparilla had been used to the utmost extent in vain. He denied having ever had any venereal infection, and his wife, with whom he cohabited, was perfectly healthy. The same remedy was administered, with the addition of opium to allay the nocturnal pains. I first visited him on the first of July, 1831, and although he drank a pint of new rum daily, he was perfectly cured on the 23d of August following. He continued in his abominable habits for five years afterwards, without any relapse, and was ultimately drowned in a fit of drunkenness.

3. A professional gentleman, aged 30, in the month of November, 1832, placed himself under my care and that of Dr. Pardy, in the last stage, apparently, of ulcerated nodes and hectic fever, having been bedridden upwards of five months. It appeared, that two years previously he had contracted, in London, a primary excavated ulcer, which was easily cured by a moderate course of mercury; and that about 18 months ago, he began to suffer from noctural pains, which were followed by deep-seated extensive ulcers in the forehead and extremities, for which mercury, sarsaparilla, and the mineral acids were used in vain. He was covered with ulcerated nodes—reduced to a skeleton, through excessive pain and want of sleep, which had induced insanity. He was made to drink Ptisane de Feltz daily, with a full dose of laudanum at bed-time, and, in little more than two months, a perfect cure, without the assistance of any other medicine than a very small dose of the oxymuriate of mercury during the first month of the disease. He never relapsed, and is now residing in London.

4. A Creole negro, aged 26, healthy from his birth, after amputation of the leg, from an accident, was attacked with all the symptoms of the first case in so aggravated a degree, that the nasal and palatal bones had exfoliated; although, so rare is syphilis in the West Indies, neither he nor any of his progenitors could be traced to have been affected either with that or other constitutional malady for two generations. It baffled every attempt at cure, or even alleviation, with the ordinary and most approved remedies, and was perfectly cured in two months, under precisely the same treatment as the last. I personally inspected him last Saturday, and found him in good health, although much disfigured.

To the above may be added two female apprentices of the magistrate, exhibiting striking cases of this protean malady, in a desperate form, resisting all remedy; but at last obtaining perfect ease through the formula I have been recommending—as also the child of a respectable inhabitant, and the captain of a merchant brig, and others of our European colonists, who have unquestionably been saved from the most malignant cutaneous disease through its operation.

LACERATION OF THE PERINEUM CURED BY OPERATION. *By Robert Davidson*, Esq.

THE restoration of the perineum to its natural state, after having been lacerated

in labour, is unquestionably one of the greatest triumphs of surgery. In the following case, which we extract from the Lancet of May 4th, 1839, the patient was restored to society by the operative skill of Mr. Davidson, and the medical tact of Dr. Henry Davies.* We have learned, from the best authority, that the lady is in good health, and moves about with that cheerfulness and elasticity which youth and high spirits alone can bestow.

"The subject of this case was a lady about 29 years of age; the accident took place in her second accouchement. The laceration of the perineum was complete from the vulva to the anus, and extended from half to three-quarters of an inch into the recto-vaginal septum: the consequence of this was an involuntary discharge of fæces, to the great distress of the patient and her friends. Feeling much anxiety about the case, from the knowledge of the want of success which had so frequently attended the operation, I referred to the cases recorded on the subject.

The able memoir, by Baron Roux, fell under my notice, and as the result, in several cases, had proved so very satisfactory, I determined on adopting the plan he pursued,—that of the quilled suture,—with a little variation, which I will presently describe.

Having explained my views to Dr. Henry Davies, whom I had the pleasure to meet in consultation, he perfectly agreed with me on the method I proposed to adopt; and although only twelve days had elapsed since the accident, the patient was so anxious to have the operation performed, that I did not hesitate to do it, having had the bowels previously well opened by means of a purgative and enemas. On the 6th November, in company with Dr. Henry Davies, I performed the operation in the following manner:—I passed deeply a strong double ligature, by means of a common curved needle, close by the edge of the rectum, and another rather more than half an inch apart from the first, towards the vagina, after which I pared the edges of the wound, which I had not previously done, that I might not be annoyed by the oozing of blood, so as to be enabled to place the ligatures more accurately. The ligatures being introduced, I employed, as cylinders, two pieces of elastic gum catheter, about an inch and a half in length, one of which was placed in the loops which the double ligatures formed on one side, and the other between their separate ends, tying them firmly upon the cylinders. Baron Roux found in his cases that the use of the quilled suture caused an eversion of the edges of the wound; to remedy this he had recourse to several small sutures, at different points, between the different ligatures. To effect the same object, and also with a view of keeping the divided parts more closely and firmly in contact, I adopted the following plan, the materials for which I had prepared previous to the operation. I armed a curved needle with a piece of narrow tape, four inches long, having a knot at one end; this was passed down each end of both cylinders about half an inch, and brought outwards, the tape being prevented slipping through by the knot; the tapes then were thus placed in such a position as to be intermediate to the ligatures; this being done I turned the cylinders gently towards the edge of the wound, and tied the corresponding tapes over it, which I think rendered it much more solid than any number of small ligatures could have done. After the completion of the operation there was so little tension of the parts that we thought it quite unnecessary to make the lateral incisions so strongly recommended by M. Dieffenbach. The wound was dressed with simple dressing, and a roller applied to the knees to guard against involuntary motion during sleep. The mistura cretæ, with the liquor opii sedativus, was given daily to restrain the action of the

* We wish that this excellent physician would publish some of the results of his long and successful practice; it would make an admirable volume for the practitioner as well as the student.

bowels, and severe diet ordered, to such an extent that during seventeen days nothing was allowed but gruel, and that in small quantities, with occasionally a little hard biscuit. This treatment, however, the lady endured with the greatest patience and fortitude.

The urine was drawn off night and morning, which, as she lay on her side, with the thighs flexed on the body, was frequently attendant with no small difficulty.

No untoward symptoms occurred, and on the seventh morning the ligatures were removed, when it was found that firm union had taken place along the whole extent of the wound, with the exception of a small fistulous opening near the edge of the sphincter, having no communication with the rectum, and producing no inconvenience to the patient. After nine or ten days the *urine* was passed without assistance, the parts being guarded by a pledget of linen; the small fistulous opening was touched night and morning with tinct. cantharidis, and occasionally with argenti nitras, with the best possible effect.

On the seventeenth day no evacuation from the bowels having taken place, we administered a purgative draught and laxative enemas, which producing no effect, were repeated: but so impacted had the fæcal matter become that there was much difficulty in accomplishing our object, so that we were obliged to have recourse to manual assistance. We were not without our fears as to the effect of the action of the bowels on the newly united parts, but the union was so firm as to sustain no injury. When regular action was established, she was allowed gradually to move about, and at the end of six or seven weeks she resumed her usual habits. During the whole time the infant was applied to the breasts at intervals, sufficient to relieve them, and keep up the lacteal secretion, as she was anxious to continue nursing."

HEIGHAM HOUSE, NORWICH.

A RETREAT FOR INVALIDS AFFLICTED WITH MENTAL DISORDER,

Under the Superintendance of the following Proprietors:—

WARNER WRIGHT, M. D., Fellow of the Royal College of Physicians in London; Senior Physician to the Norfolk and Norwich Hospital; Physician to the Norfolk County Lunatic Asylum, and to the Norwich Bethel.

WILLIAM DALRYMPLE, Esq., Honorary Consulting Surgeon to the Norfolk and Norwich Hospital; Surgeon to the Norfolk County Lunatic Asylum, and to the Norwich Bethel.

JOHN GREEN CROSSE, M.D., F.R.S., Senior Surgeon to the Norfolk and Norwich Hospital, &c.

This Establishment, which has existed above half a century, was rebuilt some years since upon an enlarged scale, so as to afford superior accommodation to the highest class of patients; it is situated in one of the most retired, healthy, and cheerful spots in the kingdom. The building is replete with every modern improvement for the comfort and care of invalids; and the lawn, plantations, and walks, extend over twelve acres of ground, all appropriated to the use and recreation of the inmates.

There is a resident master and matron, and daily professional attendance is given. Attendants accustomed to the care of invalids can be sent to any part of Great Britain.

Applications to any of the Proprietors will receive immediate attention; further particulars may also be obtained in London, of Mr. Battley, White Cross Street, Cripplegate; or Mr. John Dalrymple, 6, Holles Street, Cavendish Square.

Remarks.—We have great pleasure in directing our readers' attention to this Establishment. The names of the proprietors are the highest possible recommendation.

Abstracts of remarkable or interesting Cases, read at the Medical Section of the British Association, 26th August, 1839.

The following remarkable cases, the particulars of which we shall hereafter communicate, were read by our friend Sir David Dickson.

Case of rupture of the duodenum in four places.

Case of *ileus* from strangulation, producing sphacelation of the cæcum, which was so distended as to occupy the situation of the transverse colon.

Case of intermittent *coma* (exhibiting, though the cause was progressive and organic, remarkable alternations of torpor and excitement) from diseased brain, and rupture of the anterior artery of the cerebellum.

Case of *arachnitis*, exhibiting, besides the usual cerebral lesions, very extensive formation of little bodies of semi-cartilaginous firmness in the sub-serous tissues of the diaphragm, stomach, spleen, mesocolon, &c.

Case of sudden *coma* in a convalescent (from abscess) from extravasation of blood, in which large tubercles were found attached to the anterior extremity of the right olfactory nerve, and to the optic thalamus. And also (as in another case of phthisis) with very extensive crops of tubercles resembling pustules, in the subserous tissues of the abdominal cavity.

Case of *phthisis* with the *foramen ovale open*, in which the patient had completed the allotted period of service and attained the rank of sergeant, without cyanosis, or (until *latterly*) suffering any particular inconvenience.

Case of *phlegmonous erysipelas* of extraordinary rapidity and extent. (The man pulled out to the sound on the 4th, and died in the night of the 7th—8th August.

Case of *constant vomiting* from *chronic pancreastitis*, and scirrhus of the pylorus, and ulceration of the duodenum.

Case of *peritonitis* and *scirrhousca*, exhibiting (besides considerable effusion) the extensive deposition of an ichthoid substance of semicartilaginous firmness in the subserous cellular tissue of the intestines. It was of a dull white, yet glistening fishlike appearance, fibriform, and from half an inch to upwards of an inch in thickness in some places, and had separated the peritoneal from the subjacent coats so completely, that even yards of the latter might be drawn out from the former with great facility.

Birmingham Royal School of Medicine and Surgery

The anniversary meeting of this institution took place on Wednesday. The Theatre was crowded to excess, and many distinguished visitors were unable to obtain admittance. The Town Hall had been secured for the occasion, but the arrangements for the reception of the British Association prevented its use. Dr. Johnstone, the President, was called to the chair, having on his right hand the Earl of Dartmouth, the Rev. Dr. Buckland, and the Rev. J. P. Lee; and on his left Lord Viscount Lifford, Sir J. Mordaunt, Bart. M P., the Hon. Mr. Hewitt, C. H. Bracebridge, Esq, &c.—Letters apologizing for absence were received from the Marquis of Northampton, Earls Stamford, Bradford, and Mountnorris; Lords Bagot, Calthorpe, Lyttelton, and Wrottesley; Sir E. Wilmot, Bart., Sir

A. Cooper, Bart., E. J. Shirley, Esq. M P., Wm. S. Dugdale, Esq. M.P., &c. &c.—After a short address from the President, the following Report was read by the Rev. Mr. Clark, Rector of Northfield:—

"The Council of the Royal School of Medicine and Surgery, in presenting to the Governors on this their eleventh anniversary their report of the progress and proceedings of the Institution during the past year, find the same occasion as in preceding years for congratulating the patrons and friends of the establishment on its continued and increasing success. They find reasons for such congratulation in the growing patronage and support of the institution, in the enlarged and improved opportunities and means of instruction, in the public confidence as evinced by the concourse of students, and above all, in the efficiency of the School for accomplishing the object and purpose of its formation, as proved by the proficiency of the students themselves. In regard to the last-mentioned point, the first, as it is the most important part of their report, your Council have to state that twelve students, wholly educated in this establishment, having presented themselves for examination before the College of Surgeons, London, and Society of Apothecaries during the year, have obtained their diplomas with credit, and that the only student who offered himself for the degree of Bachelor of Medicine at the New University of London was placed by the Faculty in the first class.

"Your attention must now be called to several new appointments which, on the recommendation of the Lecturers, your Council have been induced to make during the past year, and which will require the approval and confirmation of this general meeting. Mr. Bolton, formerly a distinguished Student of the School, and since then a successful private teacher of medicine, has been appointed to the office of Demonstrator of Anatomy; and Mr. Langston Parker, well known by his zealous prosecution of anatomical and physiological science, and an author of acknowledged merit, has been appointed the Lecturer on Descriptive Anatomy; being part of the course which your indefatigable and talented Honorary Secretary, Mr. Sands Cox, has taught for so long a time with so much honour and ability.—In retiring from this department which, in addition to his other important engagements, Mr. Sands Cox has filled in so distinguished a manner for a period of fourteen years, and in which capacity he became the founder of the School as at present established, his object has been to devote his time and attention more directly and exclusively to the prosecution of surgery and surgical anatomy—an arrangement which cannot fail to redound to the honour and advantage of the institution.—Mr. Samuel Berry has also been appointed Joint Lecturer on Midwifery; and here your Council must record an act of liberality on the part of his colleagues, the Surgeons of the Town Infirmary, who have courteously permitted the students to enjoy the valuable privilege and important advantage of attending, under his superintendence, the lying-in wards connected with that institution."

The Rev. Dr. Buckland, in a most eloquent address, which occupied upwards of an hour, then moved that the report be accepted. Several appropriate speeches were afterwards made by the Earl of Dartmouth, Lord Lifford, the Rev. J. P. Lee, Drs. Golding Bird, Daubeny, Hodgkin, Foville and Costello, in awarding the Prizes; and a vote of thanks to Professor Dr. Buckland, proposed by Sir J. Mordaunt, Bart. was unanimously carried.

OBITUARY.

Died, on the 28th of August, 1839, Mr. David Key, Surgeon, of St. John's, Southwark, in his 79th year, universally respected, having lived in that parish nearly 60 years.

BINDING LIST NOV 1 · 1943

Biological & Medical
412968
Medico-Chirurgical Review (American reprint)
N.S. vol.31 (Apr.1-Sept.30,1839)
P
Med
M

University of Toronto
Library
Biological & Medical Serials

DO NOT REMOVE THE CARD FROM THIS POCKET

Acme Library Card Pocket
LOWE-MARTIN CO. LIMITED